



GOVERNMENT OF INDIA  
PUBLIC WORKS DEPARTMENT

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REPORT

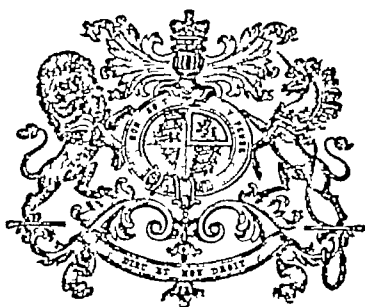
OF

THE COMMITTEE

ON

PUBLIC WORKS ACCOUNTS,

APPOINTED BY PUBLIC WORKS DEPARTMENT LETTER No 374 A. G.,  
DATED 22ND OCTOBER 1888.



SIMLA  
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# REPORT

## OF THE

# PUBLIC WORKS ACCOUNTS COMMITTEE.

## PART I

### NARRATIVE OF PROCEEDINGS

THE Government of India in Public Works Department resolution No 374 A G,\* dated 22nd October 1888, appointed a Committee to make a searching inquiry into the system of accounting for receipts and expenditure in the Buildings and Roads and Irrigation Branches of the Public Works Department, and to report how far the present procedure could be simplified without sacrificing administrative control

2 In this resolution the Committee was instructed to visit Lahore, Allahabad, Bombay and Calcutta Madras was subsequently added, *vide* Public Works Department letter No 69 A G,† dated 14th March 1889

3 *Places visited*—The Committee met at Lahore on the 1st November 1888, and subsequently visited Amballa, Meerut, Allahabad, Bombay, Jubbulpore, Calcutta, and Madras The sittings held at Amballa, Meerut and Jubbulpore, were arranged to suit the convenience of certain officers

4 *Sittings*—The particulars of the sittings in each province were as follows

Province	Station	Local Member	PERIOD		Number of witnesses examined.
			From	To	
Punjab	Lahore	Major S. L. Jacob, R E	1st November 1888	8th December 1888	49
	Amballa	" "	10th December "	14th " "	12
North Western Provinces and Oudh.	Meerut	None	17th " "	20th " "	5
	Allahabad	Mr J Heinig	22nd " "	12th January 1889	41
Bombay	Bombay	, O T Burko	14th January 1889	8th February "	29
Central Provinces	Jubbulpore	None	15th February "	17th " "	3
Bengal	Calcutta	Mr D B Horn	21st " "	8th March "	13
Madras	Madras	, A A G Malet	18th March	29th " "	14
					164

NOTE.—Two Hyderabad officers are included in the number examined at Bombay three Military Works officers in the number examined at Allahabad and one in the number examined at Calcutta.

5 *Procedure in taking evidence*—The first action of the Committee was, aided by the local member,‡ to critically examine those parts§ of the departmental code, and those code|| forms, which relate to the subject of the inquiry After this examination was concluded, the Committee framed 30 notes¶ on separate subjects and one paper\*\* of miscellaneous subjects, which they placed in the hands of the witnesses, with a letter†† asking them to furnish written opinions on the points discussed in the notes or on any other matters within the scope of the inquiry The witnesses were also examined orally to a certain extent A separate paper‡‡ was framed of questions to be put to lower subordinates not in charge of sub-divisions

‡ Major Jacob R F  
§ Vol I and Chapter XIII  
|| Part I of Forms  
¶ Appendix C  
\*\* Appendix D  
†† Appendix F  
‡‡ Appendix F

6 In the course of the inquiry the Committee had brought before it several subjects which were not discussed in the papers above referred to,

notably a proposal to substitute travelling audit for the present system of central audit with test audit

7 *Witnesses*—The number of officers of the different classes whose opinions were invited was as follows

Province	Chief engineers	Superintending engineers	Executive engineers in charge of divisions.	SUB-DIVISIONAL OFFICERS.		Lower subordinates.	ACCOUNTS OFFICERS		
				Executive and assistant engineers.	Upper subordinates.		Caretaker officers.	Accountants in central offices.	Divisional accountants.
PUNJAB { Buildings and Roads Irrigation	1 1 1	3 2	8 7	4 6	3 2	7	3	5	6
NORTH WESTERN PROVINCES AND OUDH { Buildings and Roads Irrigation	1 1	2 2	1 4	3 3	5 3	2 2	4	7	3
BOMBAY { Buildings and Roads Irrigation	1	1	3 3	1 1	4 3	1	3	2	1 1
HYDERABAD { Buildings and Roads			1				1		
CENTRAL PROVINCES { Buildings and Roads		1					1		
BENGAL { Buildings and Roads Irrigation		2 1	2 3	2	1		2		
MADRAS { Buildings and Roads Irrigation	1 1	1	2 5				2	1	
MILITARY WORKS DEPARTMENT		2	2						
RAILWAY DEPARTMENT		1	1						
TOTAL	7	18	41	10	21	12	15	15	16

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Note—Three officers to whom papers were issued for an expression of opinion did not return them

8 The local government was in each case invited to select the witnesses and asked to send forward officers who should fairly represent, as far as possible, the different conditions of work in the department. As the Military Works Department keeps its accounts under the rules of the Public Works Code, the Inspector General of Military Works was invited to send any officers he might select, to express their views to the Committee on the questions at issue. This invitation was availed of. One officer of the Railway Department asked to be examined, and to one other papers were specially sent.

9 The Committee finished taking opinions at Madras on the 29th March 1889, and in accordance with orders\* proceeded to Simla to draw up its report.

\* Public Works Department No 69 A G, dated 14th March 1889 (appendix B)

## PART II

### THE EVIDENCE

10 The opinions of the officers consulted, on the questions put to them are tabulated in appendices J to U.

11 *Additional subjects*—Questions which arose during the progress of the inquiry and were not included in the notes prepared at Lahore, and on which consequently all the officers consulted had not an opportunity of expressing their views, are distinguished in the tabulation of the evidence. They will be found at the end of each officer's ordinary evidence.

12 *Divergence of conditions*—In considering the opinions of witnesses it has to be remembered that the circumstances of the several provinces are divergent, and frequently the conditions of the Irrigation Branch within a province are quite dissimilar to those of the Buildings and Roads Branch. In one province or branch daily labor is found to prevail, in another most of the works are carried out by contract, in a third it is necessary to keep stock in almost every sub-division, while in a fourth stock is hardly required to be

kept at all. In some provinces the payments are made chiefly from the headquarters of the division, in others payments are made almost entirely by sub-divisional officers, and are merely grouped together in the divisional office.

13 In the Punjab, the North-Western Provinces and Oudh, and in Bengal, the Irrigation divisions are separate from the divisions of the Buildings and Roads Branch, and these divisions are generally partitioned into territorial sub divisions under gazetted officers or experienced subordinates, with drawing accounts. In these divisions stock is generally kept, and daily labor is to a certain extent employed. In the Punjab daily labor is more generally employed than in the North-Western Provinces and Bengal.

In Bombay and Madras the Irrigation and Buildings and Roads work is performed generally in the same division, although some divisions are essentially Irrigation and others are virtually Buildings and Roads divisions. In the Central Provinces and Hyderabad there are no Irrigation divisions.

In Bengal generally, work is done by contract, in and near Calcutta this is carried out to the fullest extent possible. In Bombay, in some places, the predilection for daily labor and piece work is marked, but very little stock is required to be kept in that province.

In the North-Western Provinces and Oudh there is a different organization of the Buildings and Roads Branch from that followed elsewhere. This will be found referred to in part V.

14 *Delay on part of some witnesses*—It is necessary to note that some of the witnesses did not furnish their written opinions on the printed papers in time to admit of oral discussion, to remove misapprehension or clear up doubtful points. A list of the witnesses and of the dates on which papers were issued to them and returned will be found in appendix G.

15 *Irrigation revenue accounts not discussed*—Although the order of government establishing the Committee, read literally, may be taken to have included within the scope of the inquiry, the procedure and forms used for the assessment and realization of Irrigation revenue, the Committee has understood that it was not the intention of government that it should investigate the working of this branch of departmental operations, and it has consequently taken no evidence on this subject.

16 *Is reform called for?*—In order to be able to place before government, in a brief shape, a reply to the question whether reform in the Public Works accounts was called for, and to indicate the general direction the officers affected thought reform should take, the Committee specially consulted 98 officers. The questions put and the replies were as follows.

Questions	NUMBER OF OFFICERS WHO REPLIED		
	Affirmatively	Negatively	Indefinitely or not at all
1 Is it your opinion that the Public Works system of accounts is too complicated and over-elaborated?	86	6	6
2 Is this over-elaboration (if you answer the above question affirmatively) so great as to interfere with the strictly professional duties of officers?	82	10	6
	Divisional	Sub divisional	
3 Speaking generally, does the burden of accounts work fall chiefly on divisional or sub-divisional officers?	30	50	18
4 Without going into details, please state briefly what is the general direction of the reforms, if any, which you think necessary and would recommend?	See appendix H, and the beginning of the tabulation of each officer's evidence		



17 Three officers only of the executive branch answered question 1 in the negative. Five executive officers only answered question 2 in the negative. It is thus established that there is a general outcry against the present system and a demand for reform.

## PART III

### GENERAL REMARKS

#### Organization of divisions.

18 The orders in the Code regarding measurements and payments appear to be based on the assumption that the divisions are of such a size and so organized, that the executive engineer in charge can have a personal control of all his works and subordinates, that everything going on is within his own personal knowledge, and that he can himself pay or scrutinize before payment, all claims,—*vide* Code I, XII, 145. This is not possible in divisions organized as in the Irrigation Branch of the North-Western Provinces and Oudh, and as in both branches in the Punjab.

This condition probably once actually prevailed, but the tendency of recent years and the practice has been to increase the size of divisions, so that the executive engineer has in many cases lost this personal grasp. He has in many instances become a superintending engineer on a small scale, and his outlying assistants the executives, whilst no diminution of his responsibility for details of works or accounts has been recognised.

19 Under these circumstances the ever-growing complication and elaboration of accounts and the demands for new statistics have been more grievous than they would otherwise have been. With the increased area of divisions the number of documents and accounts to be signed and countersigned has also greatly increased. One able and zealous officer informed the Committee that the signing of his day books, accounts and vouchers, for the month, writing as fast as he could, without any attempt to criticise their contents, occupied a serious amount of his time. Similarly, correspondence and general business have necessarily increased in the same proportion, what were formerly divisions being now, in many cases, only sub-divisions.

20 *Increase in size of divisions*—As a definite instance of such an increase in the size of divisions, the case of the present Peshawar provincial division in the Punjab may be quoted. It is only one of many. Formerly the Hazara division exactly coincided with the civil district of Hazara. Now, Abbottabad is the head-quarters of the Peshawar division, which includes, besides the old district of Hazara, the whole of the Peshawar Valley, with the outlying forts, so that one provincial executive engineer now covers almost all the ground which was formerly under three, when there were executive engineers at Attock and Peshawar, as well as at Abbottabad. No doubt owing to the extension of railways, there has been some reduction of road maintenance work within this area, and travelling is faster, also the Military Works Department has taken up a certain portion of the former work, but the fact remains that the executive engineer has become a superintending and inspecting rather than an executive officer and must have less personal hold of the division, whilst all difficulties of management and accounts are vastly increased.

21 *North-Western Provinces and Oudh*—On the other hand, in the Buildings and Roads Branch of the North-Western Provinces and Oudh the executive engineer has been entirely relieved of disbursements and of the compilation of accounts, and has become altogether a superintending officer.

22 *Onerous character of duties*—One consequence of the increase in the size of the divisions is, that most of them can be held with anything like complete efficiency only by executive engineers above the average of departmental and professional ability. A chief engineer remarked to a member of the Committee that he had no divisions in which to put his inferior officers, those

whose departmental ability was below the average. The work had increased so that there were no divisions left suitable for these men.

23 These remarks are put forward, not of course with any idea of criticising the administrative measure of largely increasing the size of divisions, but merely as one reason why every increase of accounts work has had a weight and effect beyond what it might have had in former days, and why it is absolutely necessary to lighten the burden of accounts.

24 *Bombay*—The old idea of everything being within the executive engineer's own grasp and management, largely prevails in the Bombay Presidency, where, as a rule, no sub-divisional officer is allowed to pay labor on a muster roll until it has been scrutinized by the executive engineer, and as regards payments to contractors, not only are the details of measurements examined by the executive engineer, but in nearly every instance he actually disburses the money.

25 *Extension of irrigation*—The large extension of irrigation in late years has added considerably to the work of executive engineers of the Irrigation Branch, and consequently the disposal of revenue business takes up a larger portion of their time than formerly.

### Duties of executive officers.

26 The classification of the various duties of an executive engineer and a sub-divisional officer furnishes a strong argument for the utmost simplification of accounts.

27 All the work of an executive engineer or a sub-divisional officer can be grouped under three classes:

I—Professional

II—General

III—Accounts, and correspondence relating to them

28 Class I consists of—

- (a) Inspecting work out of doors, and giving orders upon it, setting out and measuring work
- (b) Designing and estimating in the office, or criticising the designs and estimates of others
- (c) Correspondence and reports on purely professional matters
- (d) In the Irrigation Branch, the distribution of water, the assessment of water rates, the settlement of disputes, and judicial functions

These duties, especially (b) and (d), make such heavy demands upon the executive officers that they should be left as free for them as possible.

29 *General duties*—Class II embraces duties relating to general administrative business and discipline, with which may be grouped correspondence on non-professional matters.

These are absolutely necessary, and to conduct them efficiently, whilst giving a minimum of time to them, depends so much on personal qualities, that it is impossible to legislate for them, or lay down rules for their reduction.

30 *Accounts duties*—Consequently III is the class which must be simplified and reduced, if the maximum time is to be left free for duties of class I. As things stand an officer is often so tired and worried by duties of classes II and III, that he cannot give a free untrammelled mind, and his best abilities, to class I. Hence there is delay in the preparation of estimates, and consequently in the prosecution of works.

### Causes of dissatisfaction.

31 *Overlapping of duties*—The Committee is of opinion that the serious outcry against the burden of the accounts is to some extent due to the limits of the provinces of the examiner and executive officers overlapping each other. There can be no doubt that it is necessary for good administration to have accounts carefully kept, and to subject the transactions to an independent audit, but

the Committee thinks that great care and considerable discretion should be exercised in raising objections in audit. When a sanction is exceeded or a distinct rule of Government directly infringed, there is no question but that objection should be taken in audit on the discovery of the irregularity, but in doubtful cases, and especially where a question arises whether an officer has exceeded powers entrusted to him or not, the Committee thinks that the raising of an objection in audit is the least satisfactory method of initiating action; and that, as a rule, the examiner should in such cases first represent the matter to the superintending engineer or to the local government, so that the officer may, if necessary, be brought to account, not by the auditor, but by his own official superior.

32 *Audit objections*—It appears to the Committee to be more conducive to good administration to accept the rulings of an administrative officer within the general powers entrusted to him, even if they be on occasion apparently open to question, than to be frequently raising objection to his action in audit.

33 *Remarks on accounts*—The Committee further considers that remarks upon the accounts should be carefully reduced to sensible criticisms, to which it is of some importance to the State that the executive engineer or his accountant should give attention. The examiner, while careful to point out irregularities and indicate the remedies, should not be too precise in trifling matters which are of no real importance to the finances of the State, but which may be made very troublesome to those who have to account for them, *vide* Code II, XIV, 45.

34 *Province of examiner*—The Committee, in its recommendation on the subject of audit of works' outlay by sub-heads of estimate, has endeavoured to remove one instance of the overlapping of duties, and it thinks that examiners should be forbidden from directly questioning the orders of executive officers within their powers on travelling allowance and other personal questions, it being always open to them to bring to the notice of the local government cases of apparent abuse of powers, and they being in fact required to so do.

35 The Committee finds that there is some feeling in the department to the effect that examiners at times step beyond their province, and thinks that this feeling is to a certain extent justified.

### Suggestions for reform.

36 The principal suggestions for reform which have come under discussion are the following:

- I—Reduce the number of forms, and simplify the remainder, and the routine connected with them. Allow modification of forms to suit local requirements.
- II—Remove all petty checks and counter checks, especially certificates that officers cannot conscientiously sign, and dispense with the signatures of officers to papers, the contents of which they can have no personal knowledge of.
- III—Hold engineering officers fully responsible for cash, stores, measurements and payments, but hold them responsible, in a minor degree only, for compilations by the divisional accountant.
- IV—Increase the powers of officers, and trust to their zeal and honor. Reckon personally with defaulters instead of imposing additional rules upon all.
- V—Restrict the examiner's action to duties of audit and account, and leave the entire responsibility for watching the regularity of progress on sanctioned works, for economical administration, and for settling the detail in which outlay on a work is to be recorded, to the controlling officers.
- VI—Raise the limit under which outlay on a work is not required to be accounted for by sub-heads of estimate.
- VII—Discontinue returns that are of no real service to the State.

- VIII —Reduce the clerical work of sub-divisional officers to a minimum, so as to give them more time for supervision of their works
- IX —Allow payments for salaries and miscellaneous purposes at provincial head-quarters, to be made by the examiner, and place upon him all inter-provincial and other adjustments which do not affect the charges to individual works in progress
- X —Substitute books for loose returns
- XI —Avoid all repetition and duplication of work, and the keeping of office copies of vouchers and returns
- XII —Abolish pre-audit entirely
- XIII —Simplify the procedure with respect to outlay on public works by "civil officers"
- XIV —Extend the intervals between the dates of submission of some of the periodical returns
- XV —Relieve the executive engineers of disbursement and compilation, and place those duties on the examiner
- XVI —Compile accounts in examiners' offices from copies of cash books and vouchers
- XVII —Centralise the compilation of accounts
- XVIII —Abolish the present system of audit by a central office, and substitute for it a system of travelling audit
- XIX —Postpone audit to quarterly periods
- XX —Reduce the size of divisional charges, and do not concentrate the accounts of several executive charges in one office

37 *Possible reforms* —The Committee thinks that reform is possible in the directions indicated in clauses I to XIV of the preceding paragraph

With regard to clause XV the Committee recommends a partial reform.

With regard to clause XVI the Committee recognises that in certain circumstances reform may be possible

It does not see its way to make any recommendations in the directions indicated by clauses XVII to XX

38 *Order of discussion* —These subjects are discussed in detail under the following heads, in part IV of this report

I —Measurements

IA —The contractors' book.

II —Forms necessary in making payments

IIA —Mustel rolls and daily reports

IIB —Certificates and signatures

III —Cash books. The implest cash book

IIIA —Cash books The sub-divisional and divisional cash book

IIIB —Count of cash and check of drawing account balance

IIIC —Payments into treasury

IV —Stock accounts

IVA —Materials at site

V.—Liabilities.

VI —Day books and the works ledger.

VII —Records of the sub-divisional office

VIII —Records of the divisional office

IX —Returns to the examiner

IXA —Application for letters of credit

X —Audit of works accounts by the examiner.

XI —Objectionable items

XII.—Tools and plant.

- XIII —Road metal returns.
- XIV —Salary, travelling allowance and contingent bills
- XV —Workshop accounts
- XVI —Estimates
- XVII —Appropriations
- XVIII —Completion reports and certificates
- XIX —Relation of executive engineers to the examiner
- XX —Accountants
- XXI —Transfers of charge
- XXII —Stock-taking
- XXIII —Centralisation of accounts work
- XXIIIA —Payments by examiner
- XXIV —Records of establishment matters
- XXV —Returns to other authorities than the examiner
- XXVI —Powers of executive and sub divisional officers
- XXVII —Travelling audit and audit at other periods than at end of month.
- XXVIII —Miscellaneous subjects
- XXIX —Summary

## PART IV

### CONCLUSIONS AND RECOMMENDATIONS

39 *No radical change necessary*—The Committee does not find that any radical change of procedure is called for, but that simplification of forms and routine, and the cutting off of excrescences which have grown up of late years, is urgently required. The Committee thinks that it should be permissible to local governments to modify, to a considerable extent, the forms and procedure, to suit the requirements of provinces, provided always that such modification involves no departure from a principle, and does not affect the form in which the general results are stated. Local circumstances should, as far as possible, be allowed for, so long as essentials are attended to.

40 *Reforms recommended*—The following are the principal recommendations which the Committee is able to make for reduction of work and simplification of procedure

- 1 *Abolition of audit by sub-heads, and giving facilities to superintending engineers to watch outlay by sub-heads on works in progress*
- 2 *Raising of limit under which it is unnecessary to record outlay by sub-heads*
- 3 *Abolition of day-books and introduction of a works ledger*
- 4 *Certificates to be almost entirely abolished*
- 5 *Officers not to be required to sign any paper, of the contents of which they cannot have personal knowledge*
- 6 *The number and the bulk of the returns now submitted to the examiner to be greatly reduced*
- 7 *Simplification of procedure in connection with applications for letters of credit*
- 8 *Reduction of number, and simplification, of forms used in making payments*
- 9 *Details of measurements not to go beyond the officer having authority to pay the bill*
- 10 *Omission of details from the vouchers on which payments are made on account to contractors*

- 11 *Acceptance as a voucher of a statement by a responsible officer that a payment has been made, when a voucher in ordinary form cannot be produced*
- 12 *No vouchers to be required for purposes of audit, for payments individually less than Rs 10*
- 13 *Copies of vouchers to be dispensed with as far as possible*
- 14 *Master rolls to be printed locally, and modified according to requirements*
- 15 *Simplification of procedure for allocation of daily labor to works and sub-heads*
- 16 *Simplification of stock accounts*
- 17 *Reduction of extent to which the present rules require liabilities to be taken into the accounts of works*
- 18 *Reduction to a minimum of the accounts work of sub-divisional officers*
- 19 *The divisional accounts to be kept in books, and the returns to the examiner to be extracts from these on printed forms*
- 20 *Initiation of objections to be left to the examiner*
- 21 *Abolition of pre-audit in the case of all salaries and of travelling allowances*
- 22 *Substitution of simple completion certificates for completion reports when estimates are closely worked to*
- 23 *The routine connected with appropriations to be simplified*
- 24 *Powers of officers to be increased*
- 25 *The more extended use of printing*
- 26 *Simplification of tools and plant returns*
- 27 *Ditto road metal returns*
- 28 *Cessation of payments of miscellaneous receipts into treasury*
- 29 *Procedure on transfer of divisions to be simplified*
- 30 *Payments to general establishments, and of miscellaneous charges at head-quarters of local governments, to be made by the examiner*
- 31 *All adjustments between provinces, funds, &c, not affecting works in progress, to be made by the examiner*
- 32 *The necessity for all returns required of executive engineers by other authorities than the examiner, to be closely scrutinised.*
- 41 *Daily labor and stock*—The Committee would point out that accounts work can be very much reduced, and much of the time of officers set free for their professional duties, by, when practicable,—
  - (a) the substitution of contract arrangements, for daily labor, and
  - (b) the abolition of stock

The necessity for keeping up stock might be obviated, when local circumstances admit of it, by inviting tenders for the supply of miscellaneous stores at schedule rates for the official year or other period

42 *Subjects discussed*—The Committee's conclusions and recommendations will now be stated in detail

## Subject No 1

### *Measurements*

43 *Measurement book*—The foundation of the accounts of expenditure in this department is the measurement book. The practice of the department with respect to measurements appears to be generally satisfactory. The evidence received by the Committee shews that the officers of the department fully recognise the importance of this subject

44 In those provinces where the division is divided into several territorial sub-divisions, each under the charge of a gazetted officer or experienced upper subordinate, the practice is, as a rule, as follows.

45 *Measurements how made*—When works are concentrated, the measurements are usually made by the sub-divisional officer himself, but when this is not practicable, the subordinate in charge of a work makes the measurements, and the calculations, which he sends to the sub-divisional officer in the shape of measurement sheets or in his measurement book, are checked by the sub-divisional clerk. The measurements themselves are tested by the sub-divisional officer, by actual re-measurement, by comparison with plans and estimates or by inspection. When the measurements are made by the sub-divisional officer himself, the calculations are similarly checked by the sub-divisional clerk, but, as a rule, test re-measurements are not made by the executive engineer. In such cases there is a strong feeling in the department that subsequent arithmetical check by the accountant is unnecessary.

46 In those provinces where the division is not parcelled out into territorial sub-divisions, and where, as a rule, the sub-divisional officer is a subordinate, often a lower subordinate, a similar practice is followed, but in this case test measurements are, when practicable, made by a gazetted officer, and the calculations of measurements are checked, under the supervision of the accountant, by a clerk in the divisional office.

47 In cases where the work under execution is of a character which cannot be checked from the estimates, because no accurate forecast of the quantities of the different classes of work is possible, such as a cutting where it cannot be ascertained, till work is begun, how much earth, gravel, hard and soft rock will be met with, the measurements are not entrusted to subordinates.

48 *Check of calculations*—The orders\* at present in force require that the measurements shall in all cases be reported in detail to the divisional office, and that the details of the calculations shall be therein checked by the accountant, or by a clerk working on the accountant's responsibility, and that the accountant shall personally at least compare the measurements charged for in bills, with the totals worked out in the measurement books or sheets.

49 The Committee is inclined to think that the importation of the accountant into the chain of responsibility for the correctness of calculations of measurements is, in the first of the two cases above stated, unnecessary, and that an efficient check would be secured by leaving with the sub-divisional officer, the entire responsibility for the correctness of measurements and calculations, the accountant having merely to check the arithmetical accuracy of the bills.

50 In the second case, the Committee considers that an arithmetical check of the calculations of measurements in the divisional office is necessary, and that this should be carried out under the supervision of the accountant.

51 If it be desired to uphold the present order that the calculations of measurements shall be checked by the accountant, it will be necessary in all cases for the sub-divisional officer to make a copy of his measurements, or send in his current measurement book. This, the Committee thinks, would, in the case of sub-divisions under gazetted officers or experienced upper subordinates, involve unnecessary labor and frequently cause great inconvenience.

52 *Measurements, where to be recorded*—The Committee thinks that where the sub-divisional officer is a gazetted officer or an experienced upper subordinate, and when he has authority to draw up the entries in the contractors' book (*vide* paragraph 62 below) or in the contract certificate, or to make the payments, that the details of measurements should not pass beyond him, but that they should be recorded in measurement books of the regular form, and that these books as soon as they are filled up, and the interests of the work do not require their presence on it or in the sub-divisional office, should be transmitted to and carefully recorded in the divisional office, a record being kept there of the issue and return of all books.

53 *Clerical assistance*—The Committee considers that the executive officers (whether gazetted officers or upper subordinates) should be provided with sufficient clerical aid to help them in their arithmetical calculations. The interests of government depend so much upon the personal activity and knowledge of the work entrusted to them of the sub-divisional officer and the executive

engineer, that it is undesirable to allow their time to be too much taken up with this paper work which can be quite as well done by a low paid agency

54 *Measurements when dispensed with*—The Committee considers that, as a general rule, detailed measurements should in all cases be made. There are, however, some classes of cases where they may be dispensed with, without injury to the interests of government, such as—

- (a) Periodical repairs, when the quantities are recorded as laid down in Code I, VII, 76
- (b) Petty work done on requisition, when it is evident from inspection that the work has been completed
- (c) On any work when it is evident from inspection that a certain fraction has been done or that it has been completed
- (d) When the quantities of work done can be accurately checked from drawings, sections, or such documents as earthwork registers

55 *Size and form of books*—Measurement books should, as at present, be of two sizes, *viz*, pocket-book and foolscap. The former will, as a rule, be required for scattered works, and the latter for special works. The present form, of pocket-book size, appears suitable, but several officers have complained that the binding is not sufficiently strong.

56 For the foolscap-size books the Committee recommends the following form, which is a slight modification of present form No 6, but it should be optional with local governments to introduce any modifications considered appropriate

Particulars.	DETAILS				Contents or area.	Total	LAST MEASUREMENT		Total to date
	No.	L	B	D			Page	Quantity	

57 The particulars, for which the last three columns in the larger form provide, would, in the smaller form, be added at foot. The smaller book would be inconveniently cramped if these three columns were added in the form

58 *Inking over*—In Code I, XII—47, it is laid down that entries of measurements made on the works in pencil should subsequently be inked over. The Committee considers that this is undesirable, and that the detailed entries, made at time of measurement, should be left untouched, the object in view is obtained by entering the contents in ink.

59 *Notes*—The general opinion of the department is that notes and measurements should be in separate books. The Committee agrees with this view, but considers that it is not necessary to lay down any hard and fast rule on the subject. When, in the exceptional cases, details of measurement are recorded in the note book, the officer should be responsible that a clear reference to the same, with total contents, is given in the measurement book if a *verbatim* copy be not made (*vide* paragraph 93)

60 *Note books*—With reference to certain remarks made by a Madras witness the Committee observes that note books made in the same form as the ordinary metallic note book with clasp and pencil, but of section paper and pagged, are in use in the Punjab

61 *Materials*—Receipts and issues of materials of all classes may, the Committee thinks, be recorded, on the works, either in the measurement book or in the note book according to the officer's convenience. Those on account of which payments are to be made should, whenever possible, be recorded in the measurement book



## Subject No IA

*Contractors' book*

62 To obviate the necessity of preparing several copies of contractors' certificates and bills, the Committee recommends that all accounts, whether of work done or materials supplied, should be made out, personally or under his direct supervision, by the officer authorised to prepare the contract certificate or bill, in a book (sketch below) to be called the contractors' book

TOTAL WORK DONE										DEDUCTIONS										Balance due (a-b)	Amount to be now paid	Initials of officer and date	Note of recoveries to be made
Page of measurement book or other reference	Work and sub-head of work	Quantity	Rate			Amount (a)			Acknowledgment of contractor	Previous payments			Recoveries on account of stock bad work &c.			Total (c)							
			Rs.	A.	P.	Rs.	A.	P.		Rs.	A.	P.	Rs.	A.	P.	Rs.	A.	P.	Rs.	A.	P.		

63 There should be a separate page in this book for each contractor, and, when the operations were large or it seemed otherwise desirable, the contractor's transactions relating to different works should be recorded on separate pages. The book should be carefully indexed by contractors' names and by works. It should be machine numbered.

64 This book would exhibit the value of work done or supplies to date, the balance due, and the payment to be made. It would show the state of the contractor's account for each work up to date.

65 *Recoveries*—Recoveries to be made from the contractor should be noted in this book against his name as soon as the liability arose.

66 *Cross reference*—The measurement book should be crossed by a reference to the page of the contractors' book.

67 *By whom kept*—A contractors' book would be kept by each officer entrusted with the duty of making out contract certificates or bills. Like the measurement book, it would remain in the personal custody of the officer using it until filled up, and it would then be carefully deposited in the divisional office.

68 When contractors or suppliers prepare their own bills and submit a copy with the original, the sub-divisional officer's duty will be limited to checking and verifying and possibly paying the bills, it will not be necessary to enter the details of the transactions in the contractors' book, but it will be desirable to enter the totals and give a reference to the copies of the bills.

69 If the contractor submits his bill in original only, the particulars will have to be entered in the contractors' book, and it should be optional with the certifying officer to do this in every case. It would doubtless be convenient to the officer to have details of all the claims he passes in one book.

## Subject No II

*Forms necessary for making payments*

70 The forms provided at present for use in making payments are—

1	The nominal muster roll, with daily or ten-day report	Form No 2, 5 & 5A
2	Contract certificate	14
3	Petty contractor's bill	15
4	Miscellaneous voucher	16
5	Bill for materials	17A
6	Account of petty contractors	18
7	Bill for salaries	21A
8	Journal of duties	22A
9	Bill for travelling allowances	22B
10	Acquittance roll	23

The following forms are also sometimes used for this purpose :

11 Task work day book	.	Form No 7D
12 Requisition	..	8A and 8B
13 List of purchases	.	17B

Payments are also frequently made upon suppliers' own bills

71 *Few forms preferred* —The opinion is general in the department that it is preferable to have a few forms only for purposes of payment, although it may be sometimes necessary to alter or add to a form in manuscript, than to have many forms with the intention of providing one for each condition or circumstance likely to arise

72 The officers who have to make the payments have not the facilities or accommodation necessary for keeping a stock of a variety of forms, and if they happen to use a wrong one, correspondence arises, although the irregularity may be really of no importance. Moreover, the keeping of a stock of a large variety of forms wastes paper and takes up office space for no useful purpose

73 *Forms necessary* —Omitting the forms necessary for payment of salaries and allowances to the staff of the division, regarding which separate recommendations are made under subject No XIV, the Committee thinks that the following forms will suffice for all classes of payments

Muster rolls		
Contractor's certificate or bill in form A	} ( <i>vide</i> paras 79 to 97).	
Ditto ditto in form B		
Hand receipt		

74 The Committee thinks that it should also be permissible to make payments upon the requisition and "petty estimate" forms, when a work estimated for on either of these forms is paid for in one sum on completion

75 *Muster roll* —The Committee recommends that two simple forms of muster roll should be issued as samples merely, and that it should be left to executive engineers employing daily labor to print their own forms, modify details, and show progress or not, as they thought fit. Remarks on the forms of muster roll and the daily report will be found under subject No IIA

76 *Forms of contractor's certificate or bill* —The Committee has already recommended that all contractors and suppliers' accounts should be drawn out in a book (*vide* para 62 above). The Committee now further recommends that in the case of running accounts with contractors, for work in progress or supplies not completed, when it is desired to make a payment prior to the final one, the payments may be made optionally, on the hand receipt form or on form A

77 *Details necessary* —The hand receipt form should in every instance of its being used for this purpose show the name of the work, the total value of work done, and the previous payments as well as the current payment on account, and it should bear a reference to the page of the contractors' book, which page should be cross marked.

78 When payments are made, on the hand receipt form, by sub-divisional officers on account of a work the account of which is kept by sub-heads in the divisional office, the sub-divisional officer must, unless he prepares the work abstract (*vide* para 237) distribute the payment by sub-heads adding quantities. In such cases it will probably be found more convenient to use form A than the hand receipt.

79 *Form A* —The contract certificate in form A (present form No 14) would contain one man's account only, full details of quantities of the different classes of work or supplies would be always set forth

80 *Yellow form* —The working forms should be of several sizes and some should be on yellow paper, to be used when the final payment is made for a work or supplies, upon which previous payments have been made on account. The yellow form has now come to be generally known as an account on which no balance is due.

81 *Extract from contractors' book*—When the officer who draws out an account in the contractors' book is not authorised to make a payment thereon, either at all or until after scrutiny in the divisional office, he should submit to the executive engineer an extract from his contractors' book, accompanied or not by detailed measurements as might be required

82 *Materials*—This form A of contract certificate would be used for the purchase of materials, and a note should be placed on the form, that when used for this purpose the name of the officer or subordinate who took over the articles, if different from that of the officer who signed the certificate, should be entered against them. This is necessary to fix responsibility for the quality and quantity of the articles

83 *Contractors' accounts*—Contractors should acknowledge the correctness of their accounts in the contractors' book as indicated on the form, and on the final certificates under the same precautions as now, *vide* Code I, XII, 145 and 149, to the end

84 *Certificates to be omitted*—No certificate should be placed on the contract certificate form (*vide* note under certificates and signatures, subject No IIB, para 130). The form should be signed by the officer entrusted with the duty of preparing the bill, and simply countersigned by the contractor. If the sub-divisional officer or subordinate preparing the bill has authority to pay it, the countersignature of a higher officer is unnecessary, but in every case the bill must bear the signature of the officer who prepares it and of the officer who pays it or orders payment. There is no necessity for the signature on the bill of the subordinate employed upon the work unless it is he who draws up the bill (*vide* para 490 below)

85 *Form B*—The form which the Committee suggests under this designation is one headed as follows

Name of petty contractor or supplier	Nature of work or supplies.	Reference to recorded measurements or name of officer receiving supplies	Quantity	Rate.	Amount.			Acknowledgment.
					Rs.	A.	P.	

86 This form would be used for one or more contractors or suppliers paid up at once on completion of work or supplies. It would never be used for payments on account or for the settlement of running accounts. A number of suppliers own bills might be summarised on it and paid in one sum. It would not in such a case be necessary to repeat the details in this form, the original bills would be attached to it

87 It should be signed by the officer who prepares the bill and also by the disbursing officer or the officer who orders payment, but if they are the same a single signature should suffice

88 *Hand receipt*—The hand receipt might be in the present form No 16 with the slight verbal alterations necessary to show that it may be used indifferently for payments on account to contractors for work done or supplies, and for payments for miscellaneous purposes. It should contain the particulars mentioned as necessary in para 77 above

89 *Payments to government*—Sometimes executive engineers and officers subordinate to them have to give acknowledgments to the public for money received on behalf of government. These are now generally issued on the hand receipt form, but for this purpose form 16 is not quite suitable, and the Committee thinks it will be better to use an entirely separate form in future (*vide* para 463 below under miscellaneous subjects)

90 *General remarks*—The note "Prepared at contractor's request" which is now placed on form No 14 should be omitted from form A, as the certificates are not bills submitted by outsiders, but the outcome of departmental action concurred in by the contractors.

91 It should, moreover, be recognised that a contractor may submit his bill for work done, in the departmental form, and in very exceptional circumstances in his own form, provided it gives the necessary details and admits of the endorsements required by the departmental form being made on it

92 It does not appear necessary that any certificate to the effect that he accepts the figures set forth should be printed over the contractor's signature in the body of form A. He should sign in the contractors' book (*vide* para 83 above), and on the final certificate

93 With reference to the certificate of the correctness of the claim and of measurements, on the face of the present form No 14, there is a general opinion that this certificate, if not altogether abolished, should be framed on a basis allowing latitude, that the reference to measurements need not be limited to the quotation of a record of measurements actually taken, but that reference to any book or document in which measurements affording an efficient check over the payment, are to be found, such as earth-work registers, or the details of an estimate, should be permitted. In these views the Committee agrees, but the Committee would go further: it recommends the abolition of the certificate altogether (*vide* subject No IIB). When bills are prepared on other *data* than measurements actually taken, the source from which the details are obtained should be quoted in the measurement book, so that quotation of a page of this book would be always possible

94 Note 1 on the present form No 14 might be omitted from form A. This matter might be left to the discretion of the local authorities. Note 2 should be made sufficiently clear to indicate that it is the disburser, and not the audit office, that is to decide when witnesses are necessary to the signature of a payee, in note 4 it should be explained that it is only for the final payment on account of work on which payments have been made on account, that a yellow form is required, note 5 is redundant, and note 6 should be omitted. There is also unnecessary detail in the docket on the back of the form: it might be limited to division, sub division, work, contractor's name, and to number of last and present certificate and month

95 *Purchases* — When form A or form B is used for purchases of materials, no attempt should be made to distinguish between "Price" and "Payments," as is now done on form No 17B. The description of materials, rate, unit, amount, and the account for which purchased, should alone be shown

96 *Suppliers' bills* — Suppliers' own bills when prepared in English should be freely accepted, the necessary particulars required by the departmental form being added by departmental officers. Also suppliers might receive departmental forms freely, in which to submit their bills. This is the preferable procedure

97 *Supply of information to contractor* — Any contractor desiring to receive a copy of his certificate, or of the entries signed by him in the contractors' book, should be supplied with this on payment of a nominal sum to be fixed by the local government and credited to the State

98 *Vernacular vouchers* — The question whether lower subordinates who know a vernacular language only, might not, in certain circumstances, be allowed to prepare contractors' certificates, was discussed. This would involve the acceptance of such contract certificates in vernacular by the examiner as vouchers. Opinions were strongly against this proposal, and the Committee considers that as a general rule vouchers should be prepared in English, but that an examiner should not refuse to accept as a valid voucher a document which is in the vernacular. Such a document should bear a brief note of the particulars in English

99 One officer of high standing in Bombay expressed himself very strongly in favour of primary accounts and vouchers being kept in the vernacular, and he instanced the practice of government in the Revenue department where the accounts, especially those of ryots' rights, were, he explained, strictly ordered to be kept in the vernacular. Another Bombay officer of as great experience or greater gave a diametrically opposite opinion

100 *Limit within which vouchers not required* — The question to what extent it is desirable to allow payments to be made without a voucher was much

discussed. Opinion on it is divided. The present rule is that the paying officer must take vouchers for all his payments in one shape or another, but that muster rolls, and vouchers for payments individually less than Rs 5, need not pass beyond the disburser's possession, or at least beyond the divisional office. They are, however, liable to be called for by the examiner at his inspections. There are cases in which it is difficult, if not impossible, to obtain receipts from the payees, and the tendency of the rules as they now stand has been to encourage the manufacture of incorrect or spurious vouchers.

101 The Committee thinks that it might be left optional with executive engineers to require, from those serving under them, vouchers for payments under Rs 10 each, but that in no case need vouchers under this limit be submitted to the examiner or called for by him in his test audit.

102 The Committee further thinks that in many cases a certificate of payment by a responsible officer, is the best voucher of the payment, and that such certificates should be freely accepted in all cases when the executive engineer can satisfy the examiner that there is difficulty in getting a formal voucher.

103 *Copies of vouchers*—The question how far the keeping of copies of vouchers which have to be submitted to the examiner is necessary, was also discussed. Muster rolls are to be kept locally, and therefore no copies of these need be made. It has been suggested (in para 62 under subject No IA) that all bills should be made out in a contractors' book. This book will contain full details of payments for work done or materials supplied. There appears no necessity for keeping by the disburser or in the divisional office copies of any vouchers of payments submitted to the examiner.

104 *Custody of vouchers*—The original vouchers can, if so desired, be returned by the examiner after audit and defacement, to be filed in the divisional office. They could be returned to the divisional office within two months of the end of the month to which they relate, but the Committee thinks it would be preferable to record them in the examiner's office. The space which they would take up can be estimated very closely.

105 *Vouchers generally*—The Committee thinks that no vouchers should ever be objected to for mistakes under an anna, except in rates, that corrections made in the details of an account need not be severally initialled, provided the corrected result is initialled, further, that vouchers should not be returned to the officer drawing them up, because they are not on the prescribed form, provided every essential requirement of the form is satisfied.

## Subject No IIA.

### *Muster rolls and daily report.*

106 The carrying out of work by daily labor, instead of by contract, adds greatly to the accounts work of the division (*vide* para 41(a)).

107 The orders now in force, and the forms provided, contemplate the case of works of considerable size only, where there is sufficient work in progress to justify the employment of some official on the work to keep the time of the laborers, but daily labor has frequently to be employed at a distance from official supervision under mates or head mistries, on such work as silt clearance of canal distributaries, road maintenance, &c., &c.

108 *Allocation*—In the case of large works, where the workmen are employed under the eye of the official in charge and when their time is kept by him, and when the workmen are not liable to be often removed from one class of work to another, the nominal muster roll alone appears sufficient for the purposes of payment and allocation. The names of the workmen being arranged in the muster roll according to the sub-heads of estimate, the debit to each sub-head is thus obtainable from the muster roll direct.

109 In the case of labor employed on works scattered throughout a division or sub-division, on several works at one station, or on a single work where

the workmen are liable to be frequently shifted from one sub-head to another, there appears to be no simpler procedure for payment and allocation, than the present one of a nominal muster roll kept for purposes of payment, and a daily or ten-day report kept for distribution of the cost of the labor to the works or sub-heads of works

110 *Allocation sheet*—The allocation of the labor to the sub-heads may be made in several ways. The daily reports may be moneyed out and the totals carried into a figured abstract, similar to the one in form No 6A issued with Public Works Department resolution No 3 of 16th January 1880 (sketch attached as appendix V), or if it be thought to involve too much trouble to money out the daily reports, the classes of labor may be abstracted daily and moneyed out at the end of the month on a form corresponding to the inner sheet of day-book form No 7B. If ten-day reports be used they should be moneyed out as at present and the totals carried into the abstract given as appendix V.

111 It is possible to dispense with the use, for purposes of allocation, of the daily reports, by the introduction of letters indicating the sub-heads on which the laborers are employed into the daily columns of the muster rolls, abstracting the results on the muster roll and carrying them into the allocation sheet, (appendix V)

112 It is desirable, whenever possible, to record the allocation of the value of the labor, and the progress, upon the muster rolls themselves, and dispense with daily or ten-day reports and allocation sheets altogether.

113 *Muster roll forms a sample only*—The present form of muster roll (form No 2) appears to be generally suitable, but it should be understood that it may be prepared for any convenient period of payment, a week, ten days, or a month. It should also be understood that it is a sample form only and may be modified as found necessary (*vide* para 75 under subject No II). It appears from the present standard form that a column for deductions has been accidentally omitted.

114 The Committee recommends that muster rolls should in no case pass beyond the office of the responsible disburser.

115 *Part II, unpaid wages*—There are three methods of dealing with unpaid wages on muster rolls (1) a record may be kept as in part II of the present muster roll, (2) a separate register may be kept, (in these two cases the original muster roll is closed after the first set of disbursements have been made on it), and (3) no record beyond the entry in part I of the muster roll need be made.

116 The use of part II of the muster roll may involve much repetition of the laborers' names month after month. The adoption of the second method involves the introduction of a separate register, but has many advocates. The third system appears to involve least labor. The disburser can easily take out previous rolls on which wages are due to when he goes to make payments for the latest period.

117 The adoption of any one of these methods should be optional with local officers, and consequently the retention or abolition of part II.

118 It was represented to the Committee that a column might be entered in the muster roll for arrears, in which could be shown against each man's name the sum due him for previous periods. This the Committee thinks might confuse the allocation.

119 *Part III*—The Committee suggests that part III of the muster roll should be retained, but with less detail than is shown on the present form, dimensions should be omitted, being a mere copy from the measurement book, and only the total quantities under each sub-head for the period under report mentioned. In those places where the muster roll is submitted to the divisional office, this report will be sufficient to show progress by daily labor. In other cases the progress can be copied upon the allocation sheet suggested in para 110.

120 *Casual labor roll*—A simple form of muster roll is required for cases such as urgent silt clearance of canals or closing breaches, in which

laborers are employed casually for short periods For this purpose the following form is suggested as a sample

No employed	Case of labor	Period.	Rate	Amount	Note of Payment	Quantity of work done	Work to which chargeable
			Rs. A P	Rs. A P			
6	Beldars .. ..	4 days ..	0 2 0	3 0 0	Paid 6-11 89		

The Committee calls this a casual labor roll

121 Here no daily or ten-day report is required The Committee hopes this form will meet the suggestion made by some officers that payment should be allowed to be made on the daily or ten-day report form

122 *Daily (or ten-day) reports*—The present forms of daily and ten day reports (forms Nos 5 and 5A) appear suitable, except that there is a general opinion in favor of keeping the record of materials separate from the record of labor This is discussed under subject No IVA The daily report should have a place to show the money value of the day's labor (*vide* para 110), but that for progress now given is unnecessary

123 When a sub-overseer is stationed on the work, the report can be submitted daily or less frequently at choice, but when he can visit the work only now and again, the report should be submitted for the period subsequent to his previous visit.

124 *Check upon muster rolls*—In Bombay the necessity for a special check upon entries in muster rolls, and upon unpaid wages, was much dwelt upon In divisions constituted as some of the Bombay divisions (called districts) are, it may be feasible to submit the muster rolls before payment, for arithmetical or other check in the divisional office, but this the Committee does not think to be generally desirable or necessary No doubt petty frauds in the matter of daily labor are likely to be attempted by the lower paid members of the department, but the remedy for these is not paper check, but vigilance on the part of the sub-divisional officer and the executive engineer, in seeing that work is obtained commensurate with the labor charged for, and in personally mustering the men at irregular intervals and at unexpected times These precautions are not omitted in Bombay or elsewhere A certain amount of loss to Government, in time and by fraudulent entry in the muster rolls, is, the Committee thinks, generally inseparable from the employment of daily labor, and this is one reason why it appears preferable to encourage the system of doing work by petty or regular contract, whenever circumstances do not imperatively prescribe daily labor An office check on daily labor is, the Committee thinks, practically useless

125 *Signing names on muster rolls and witnessing payments*—The rule that men who can write should sign their names on muster rolls causes much delay and trouble and is impracticable where daily labor is largely employed The payments on muster rolls should be made or witnessed by the officer of highest standing available, and he should certify to the payments individually or by groups, by a distinctive mark, his initials or signature The amount paid on each date should be noted in words as well as in figures at the bottom of the muster roll, arrears register or other list (*vide* paras 115 to 117)

126 When the entries of daily labor are few muster rolls need not be used in the case of work done on requisitions, but the particulars may be endorsed on the form of requisition

127 *Pay sheet*—There appears no necessity for a pay sheet, as is now sometimes prepared, as well as a muster roll The payments can be made on the roll itself

128 Muster rolls should never be prepared in duplicate as is now sometimes done

129 *Muster roll for several works*—The Committee thinks that as a rule there should be a separate muster roll kept for each work which has been separately estimated for or is to be accounted for by itself, but it does not advise that this should be an inflexible rule, and in cases where it is immaterial

to keep the record of unpaid wages absolutely correct by the works affected, and where for other reasons it is convenient to keep one muster roll for men employed upon several works, the Committee recommends that this course be allowed, the amount unpaid upon the muster rolls being held to relate to the large of the works in the group

### Subject No IIB

#### *Certificates and signatures*

130 The Committee recommends that the practice of requiring officers to sign certificates may be abandoned, and that it may be ruled specifically in the Code, that signature to a paper means, unless the officer signifies it protects himself by a remark, full responsibility for the correctness of the facts set forth in the paper. The Committee further recommends that an officer be required to sign any paper unless he is in a position to satisfy himself of the correctness of the facts it sets forth. It should be formally admitted that the executive engineer's signature to a compilation by the divisional accountant does not imply responsibility for the detailed tracing of the entries back to the original documents, but merely that he has every reason to suppose it has been correctly prepared.

131 *Signatures necessary*—The Committee thinks that the number of signatures of departmental officers to a voucher for a payment should be reduced to one or at the most two, and that when a gazetted officer or an experienced upper subordinate in charge of a sub-division, passes a voucher, should never require the signature of the executive engineer in charge of the division unless the latter is the disburser.

132 *Notes of criticisms*—It may often be advisable and necessary that an inexperienced sub-divisional officer's action should be carefully scrutinised by the executive engineer, and the executive engineer may well record, on the voucher, the extent or notes of his scrutiny, but there should be no rule which will oblige the examiner to refuse audit to a voucher because the executive engineer has not signed, or made remarks on it. It should not be assumed, because the signature is wanting that the examination has been omitted.

133 It came to the Committee's notice that the signatures of four or five responsible officers were required at Dera Ghazi Khan for a bed-head ticket costing Rs 1-3 only.

134 *Witnessing signatures*—The rule (*vide* Public Works Department Circular No 9 of 1882 and note 7 on form 14) requiring that signatures affixed by seals or marks, and signatures of persons that are not well known, shall be witnessed by two persons, causes much trouble. It may or may not be necessary. The Committee suggests that legal opinion be taken and orders issued accordingly.

### Subject No III.

#### *Cash-books*

##### *The imprest cash-book, form No 3*

135 *Nature of an imprest*—It is desirable that the nature of an imprest should be clearly understood. It is a sum of money given to an individual to enable him to make certain classes of payments for government. The arrangements for the safe custody of the money rest entirely with the imprest-holder, but he must at all times be ready to produce the total amount of imprest in vouchers of payments for services to government of a class he is authorised to pay, or in cash. His account may be looked upon as that of an agent doing work for government.

136 *Imprest cash book not suitable for receipts*—An imprest cash-book is an account of expenditure out of a fixed advance. The form is not suitable for cases in which an official receives money on behalf of government. In such cases a regular cash-book in form No 4 should be used, but in the exceptional case of an imprest-holder receiving money on behalf of government, he



should pay it to the nearest officer having a cash-book in form No 4, or direct into a treasury, or enter it in his imprest cash-book. Toll collectors should have cash-books.

137 *Modifications*—The column in the imprest cash-book, "Head in cash abstract book," need not be filled up by the imprest-holder, nor by the sub-divisional officer, but may be left to be used by the divisional accountant. It may be left blank (or employed to show the work and sub-head chargeable), as the necessary information is given in the abstract at foot.

In the abstract at foot dates are immaterial, and may be replaced by names of funds, and departmental and service heads.

138 *Detail of entries*—It seems sufficient to enter payments in imprest cash-books in such detail as may be sufficient to clearly indicate the work or service and the supporting voucher.

139 *Disallowances*—It sometimes occurs that items are disallowed from an imprest cash-book. In that case they should find no place in the books of the division, the effect of the disallowance should be simply to increase the balance of his imprest for which the imprest-holder is responsible.

140 *Small advances*—Frequently it is impossible to get work done without small advances, it is not desirable to recognise these, as, if this were done, the difficulties of recovery would be very great, but the Committee thinks that officers need not object to imprest-holders making them on their own responsibility out of their imprest cash, without, however, entering them in their accounts. A canal silts up in the irrigation season and has to be quickly cleared to save destruction of crops. Labor has to be rapidly collected from the villages adjoining to clear it. The custom of the country is in such cases frequently to work by petty advances to individual laborers.

141 *Sub-vouchers*—The imprest cash-book duly passed by the recouping officer should be looked upon as the voucher of the entry in his cash-book. It should be optional with the recouping officer to submit this imprest account bearing his order to recoup, as a voucher, or to keep it and initial the vouchers of the imprest account. In the former case there is no necessity for his initialing the separate vouchers of the imprest account. They would be sub-vouchers of the recouping officer's cash-book.

142 It seems sufficient to enter the abstract of an imprest account in the recouping officer's cash-book.

143 It was represented to the Committee that it is often necessary to pay workmen daily or at short intervals, and that it is very laborious to enter the payments in full detail in the imprest cash-book. These may be grouped on a form like the one suggested (in para 120) above.

144 *Allocation*—Every voucher must distinctly show the service, work and sub-head of work, to which the charge is to be carried in the books. The allocation of outlay to works and sub-heads will consequently be obtainable from the vouchers of payments.

145 When payments are made on account of daily labor the allocation will be obtainable from the abstract mentioned in para 110 above. An entry should be made thus in the body of the imprest or ordinary cash-book.

Rs

Total of muster roll

Unpaid amount

the net payment only being carried into the disbursement column, and the allocation sheet attached as a voucher.

### Subject No. IIIA

#### *Cash-books—(contd)*

##### *Sub-divisional and divisional cash-book, form No 4*

146 Each entry on the expenditure side of a cash-book now bears a number (the voucher number), and if the works ledger be adopted (*vide* subject No VI), it will be convenient to enter under this number, in fractional form, the number of the page of the works ledger to which the expenditure has been carried, so as to admit of the entry being readily traced into that book.

*Vice versa*, the entry of the voucher number in the works ledger will lead from it to the cash-book.

147. *Details to be reduced*—The details indicated as necessary by the present standard form appear in some cases to be too prolix, when vouchers are submitted by a sub-divisional officer, all that seems required is such a narration as will unmistakably indicate the nature of the transaction, the work or service for which paid, and the document on which payment, was made

148 *Check necessary*—There appears to be misapprehension in parts of the department as to the extent of check an officer is expected to exercise over the entries in his cash-book. It is desirable to explain that he is responsible for the entire accuracy of the entries of receipt and payment and of the balance, that he must see that moneys which he receives on behalf of government are correctly entered in the cash-book, at once on receipt and before he gives an acknowledgment to the payee, that moneys which he pays are similarly correctly recorded at the time of payment, and that no entries are made of payments which he did not authorise. He must also see that no interpolations are made, and that incorrect totals are not entered, that the balance is arithmetically correct and is forthcoming. The precise method of securing these ends may be left to the officer, he being made by a general order in the Code clearly to understand that he is personally responsible for the money which passes through his hands. Such orders as that he should initial every entry, or the total of each page, appear to be undesirable. The officer should sign his cash-book at the end of each month, and this signature should be understood as fixing his responsibility for all the entries of the month inclusive of the closing balance

149 *Alternate cash books*—The question whether in cases where sub-divisional officers submit copies of cash-books in this form to the divisional office, and similarly if in any case the accounts of executive engineers are compiled by the examiner, the labor of copying might not be saved by the use of alternate cash-books, was discussed. The Committee thinks that this would be fraught with inconvenience to the disburser and that the copies of cash-books should be submitted, either bi-monthly or tri-monthly

150 It was suggested by an officer of great experience that sub-divisional officers when sending in their cash-books might send a list classifying their vouchers by works, but this proposal does not commend itself to the Committee

151. The pages of cash-books should be machine-numbered

## Subject No. IIIB

### *Count of cash and check of drawing account balance*

152 It has to be remembered that it is in exceptional circumstances only that large balances are kept in divisional or sub-divisional cash chests

153 *Count*—While fully admitting the necessity for count, at least once each month, of the cash in his possession, by each disbursing officer having a cash chest and keeping a cash-book in form No 4, and the necessity for a formal record of such count, the Committee thinks that the present procedure in connection with the count of divisional and sub-divisional cash might be simplified, and that form No 1 might be dispensed with and form No 20A reduced to a memo of treasury balances to support the credit to the Civil Department in the classified abstract (*vide* paragraph 158 below)

154 *Record of count*—When the actual custody of the cash is in the hands of the accountant or a cashier, and a count is desired to be made by the responsible officer, the proper procedure appears to be for the officer to call for the cash-book, and, while balancing it himself, require the cash to be produced. In any case a sufficient record of the count appears to be a note in the cash-book (sub-divisional or divisional) specifying the gross amount found no further record or elaboration appears necessary

155 Sometimes an executive engineer is absent from his office during the whole of a calendar month, and then the accountant or any gazetted officer

or upper subordinate at or near head-quarters, might, on the executive engineer's responsibility, be entrusted with the count of the cash

156 *Responsibility*—The entry in his cash-book of an amount of cash in balance, is sufficient to fix the personal responsibility of the sub divisional officer, and a similar entry in an executive engineer's cash-book, and the entry in his monthly account (classified abstract) is sufficient in the case of the latter officer. No further details appear necessary except that on the monthly classified abstract, a memo may be given showing the disposition of the cash and giving a list of the imprests held

157 In counting the cash a note may have to be made of the different classes of currency, but there seems no necessity for a permanent record of this or a form for it. It is clearly laid down (*vide* Code, vol I, chap X, para. 1), what classes of currency, &c, may be held in balance

158 *No separate monthly report of cash necessary*—It does not appear that any useful purpose is served by specially reporting, in a separate form, the monthly cash balance. The gross amount is stated in the applications for letters of credit. The details by treasuries of the drawing account balance must, however, be given so as to check the issues of the Civil Department. This detail in form No 20A may be sent in with the monthly account, not in advance as now

159 *Record of treasury balances on cash book*—The executive engineer should record on his cash-book, in a simple form like the one sketched below, the items of difference between his treasury balance as shown in his cash-book, and the same balance as shown by the treasury officer in his pass-book, and the examiner should prove the correctness of this memo at his inspection

	<i>A</i> Treasury	<i>B</i> Treasury	<i>C</i> Treasury
Balance as per this cash-book and cheque books	000	000	000
Balance as per treasury pass book	000	000	000
Difference	000	000	000
Unpaid cheques (to be individually detailed unless this has been done on form No 20B, in that case the amount referring to each treasury will be sufficient here)	000	000	000

160 In the case of sub-divisional officers with drawing accounts the entries of this nature will be made on the copies of their cash-books in the divisional office

161 *Consolidated receipt*—The signatures of the accountant and of the executive engineer on form No 20D, appear unnecessary. This is a voucher to prove a payment to the Civil Department and what is necessary is the signature of a treasury official

### Subject No IIIC

#### *Payments into treasury*

162 The practice (*vide* Code, vol I, chap X, paras 22 to 24), of paying miscellaneous receipts into treasury, involves labor, which, although not great, may well be saved, as it secures no useful result

163 *Credit to revenue*—A public works officer receiving money on behalf of Government, credits Government, under the head of revenue or debt concerned, at the time he enters the amount as a receipt in his cash-book, which he does when he gets the money. The subsequent payment into treasury is nothing more than a cash transfer between two government departments

The issue in the public works accounts is checked off against the receipt in the civil accounts

164 The executive engineer now almost always uses (*vide* para 23 quoted above) his miscellaneous receipts as they come in during the month, and thus avoids the necessity of drawing a corresponding sum by cheque from the treasury, at the end of the month he draws a cheque, in favor of himself, for the aggregate of the miscellaneous receipts of the month, and pays the amount of this cheque into the treasury

165 This procedure apparently serves no useful purpose, and it entails labor on the executive engineer and the treasury officer, as well as upon the examiner and the civil accountant general

166 The Committee recommends that miscellaneous receipts when not in excess of the immediate wants of an executive engineer for cash expenditure, which would seldom be the case, should be utilised as now for payments, and that no remittance to treasury should be required unless the executive engineer's cash balance is raised to an amount in excess of his requirements

167 *Form No 20 C.*—This book is in a suitable form, but should seldom be required

## Subject No. IV.

### *Stock accounts*

168 The keeping of stock, like the employment of daily labor, increases greatly the bulk and the intricacy of the accounts of a division. The necessity of manufacturing materials or of starting workshops, adds further to the complication. In those divisions, and they are not few, where daily labor gives place to contract, and where materials and manufactured articles are obtainable by purchase as required, the accounts are of a very simple character, this is not the case in the divisions where stock and daily labor prevail. The accounts have, however, to be suited to the circumstances of work

169 The accounts of stock (*vide* Code II, XIII, 30) are framed on the principle that the returns of sub-divisions shall take account of quantities only, and that the moneyed accounts shall be kept in the divisional office

170. *Present accounts*—Each sub-divisional officer is required to keep and submit to the divisional office—

<i>Vide</i> Code I, XII, 114, 115, 127 to 130	(1) An account for each month of his receipts and issues of stores, posted day by day as transactions occur	Form No	9
	(2) A monthly return of receipts	"	10
	(3) A monthly return of issues	"	11
	(4) A monthly return of receipts, issues and balances	"	12
	(5) A monthly list of certain purchases	"	17B
	(6) A half-yearly balance return, <i>vide</i> Code I, X, 71, 72 and 96	"	13

171 The executive engineer prices the sub-divisional returns of stock and carries the results into (a) the day-books of works, and (b) the stock abstract book. From the stock abstract book he prepares a stock account current for each month, for submission to the examiner. The executive engineer keeps a half-yearly stock register (form No 42A) and certain other records (*vide* Code II, XIII, 30 to 38).

172 Stock has to be verified by actual count or weighment once a year (*vide* Code I, X, 93), and the articles in hand have to be priced at market rates half yearly, and any sum by which the priced stock falls short of the book value is enjoined to be written off to the works, so that the stock in hand shall always consist of efficient articles, priced not in excess of the rates at which similar articles can at the time be obtained (*vide* Code, vol. II, XIII, 39 and 40, and I, X, 97 to 99)

173 *Objections to present system*—No important objections to the present system of stock accounts have been brought forward, but it can,

the Committee thinks, be simplified Many officers favor the continuance of the present system

174 *Stock, where kept*—In some cases stock is kept in a godown or yard, generally at the divisional head-quarters, under charge of a store keeper, in other cases, it is in the charge of a sub-divisional officer either at his head-quarters or scattered over the sub division in the direct custody of lower subordinates, sometimes even of mates and others In some cases the stock although scattered over the division is in the general charge of the store-keeper, and sub-divisional officers merely indent upon him for what they require, he keeping all the accounts.

175 *Accounts of a store-keeper*—The simplest system of accounting for stock, in the first of these cases, seems to be that the store-keepers should keep a stock ledger, in the following form, and enter in it each receipt or issue of stock, on the day that the delivery into, or issue from the godown, is complete

*9" bricks, first class, at Entabad*

Date	From whom received or to whom issued	Receipts	Issues	Balance
1st November 1888	In hand			1,00,000
2nd November 1888	Received from kiln No 6	20,000		1,20,000
4th November 1888	Issued to Overseer S Jones or to Bridge at B.		50,000	70,000

A separate page to be allotted to each article of stock

176 *The stock return*—From then stock ledgers store keepers might prepare a monthly return in the following form

*Abstract of receipts and issues of stock in charge of Nathoo Ram, store-keeper, for November 1888*

Transactions	Bricks 1st.	Bricks 2nd.			* Money totals
Balances brought forward					* For use in divisional office only
RECEIPTS					
(Receipts to be detailed by source of supply)					
Total receipts					
Total receipts plus balance					
ISSUES					
(The individual works or person to which issued to be detailed)					
Total issues					
Balance at end of month					

177 The values should be entered in the divisional office in red ink over the quantities upon this return, and also the necessary headings for posting the abstract book (*vide* para 254), as is now done on forms 10 and 11

178 It should be optional to keep the receipts and issues on separate sheets, and some of the working forms should be so printed This will only be necessary when the transactions are exceptionally numerous

179. This return would be posted at the end of the month from the stock ledger The issues should be abstracted, so that one line should suffice for each work in the issue part

180. *Stock accounts of a sub-division*—When stock is scattered over a sub-division there are difficulties in getting together the particulars of receipts and

issues during the month, and the Committee thinks it is inadvisable to lay down any rules as to the manner in which the sub-divisional officer shall collect his information, but that he should be required to submit for his whole sub-division a monthly return in the form given in para 176, and to keep a stock ledger posted from this monthly return in the form sketched (in para 175), but showing totals for the month only. The object of this ledger is to show the sub-divisional officer the balance in his charge of each article at each place.

181 *Sub-divisional balance return*—Store-keepers and sub-divisional officers should be required to submit annual, not half-yearly, returns of balances of all articles on their stock ledgers in the following form

Names of articles	QUANTITY		Remarks.
	As per stock ledger	When taken stock of.	

This form would enable the present form No 13 to be dispensed with

182 *Issue of stores*—No official should be allowed to draw or order the issue of articles from stock without giving the individual in charge of the stock a voucher showing the work (or service) for which the articles were required. No special form seems necessary for this indent, except where the system indicated in the last sentence of para 174 is in force.

183 *Classification of issues*—The Committee suggests that the issues from stock should be classified in the monthly return by works (or services) only, and that when a distribution by sub-heads of a work is necessary, the stock should be passed through the suspense sub-head "materials at site" (*vide* subject No IVA), and the sub-divisional officer be required to submit, at the end of each month, to the divisional office, a statement, in the form suggested in para 176 above, showing the consumption of stock on final sub-heads of work.

#### *Accounts of the divisional office*

184 At present forms Nos 10 and 11, in which quantities have already been entered by the sub-divisional officers, are moved out in the divisional office, and the results are carried, on the one hand into the stock abstract book, and on the other into the day books. The quantities of receipts and issues are also carried into the half-yearly register of stock (form No 42A) from the monthly return in form No 12. This register (in form No 42A) is kept separately for each sub-division.

185 *Disposal of returns*—The forms suggested in paras 175 and 176 above, would take the place of forms Nos 9, 10, 11 and 12. The monthly return would first be checked to see that the correct balances had been brought forward, it would next be moved out as stated in para 177, next it would be abstracted under the heads of the abstract book (*vide* para 254), for posting the particulars therein. The total value of issues to each work would have to be carried into the works ledger, against the works which received the stores. The monthly returns should then be filed by sub-divisions.

186 *Divisional balance return*—The Committee recommends that the present form No 42A be replaced by a simple balance return as described below, and that this be made annual, instead of half-yearly. There is really no necessity for posting the receipts and issues of articles monthly into a form like 42A, the balances at the end of each official year should suffice. They are obtainable from the file of monthly returns mentioned in para 185 or the previous balance return.

187 The balance return might become a simple inventory of stock in hand at the end of each year. This would be priced as now at rates fixed within

market rates, but never beyond cost price, and the difference between the total of this inventory and the balance at the debit of the account stock would be written off under orders of the executive or the superintending engineer in supplementary March's accounts

188. *Returns to audit* — This balance return supported by the sub-divisional returns referred to in para 181 above, which would bear notes of when stock had been taken, would be submitted to the examiner for audit

189 *Adjustment of inventory with ledger value* — The stores are collected solely for the works to be carried out, and if any loss occurs on them which is irrecoverable, it is rightly chargeable to the works. The rule that nothing should be retained in the suspense balance except efficient stock likely to be required within a reasonable period, and priced within market prices, is, the Committee thinks, sound. At the end of each year the value of the stock in hand would be made to correspond with the money balance at the debit of the stock suspense account

190 *Issue rates* — The rates used for pricing out the balance return of a year would be employed as the rates for pricing issues during the succeeding similar period, but the figures would be rounded off and a necessary addition to them made in the case of articles subject to depreciation or wastage, &c. The issue rates would have to be carefully fixed on a consideration of the general circumstances, the object being to charge the works with as near as may be the actual cost of stock, and not to throw up a debit or credit balance in the stock account. It should be optional for the executive engineer to alter the issue rates at any time

191 The rates used for the purposes mentioned in the preceding paragraph would require the executive engineer's close personal attention

192 *Sub-heads of stock* — It is submitted that there is no necessity for a check over reserve stock by sub heads, *viz*, building materials, &c, although the classification may be adhered to, except in the accounts, for convenience sake

193 *Stock returned from works* — The Committee thinks that in spite of the latitude allowed, the rule in Code II, XIII, 32 and 76, requiring the superintending engineer's approval to return of materials from works to stock when the value is over Rs 500, is open to objection. The executive engineer might, the Committee recommends, be allowed to return any materials to stock which he had over-issued to a work, subject to the general condition that his stock shall consist of efficient articles only, certain to be required, and priced within market rates

194 *Issues to contractors* — When the contract for a piece of work is for labor only and materials are issued to the contractor to put in the work, such materials should be accounted for precisely as materials issued to a work being constructed by daily labor

195 Issues of materials to contractors to be recovered from them should be treated as sales, and entered at once on issue in the contractors' book (*vide* para 65 above)

196 *Stock purchases and sales* — The inclusion hitherto of transactions of two quite distinct classes under this single head of account has given rise to considerable misunderstanding. It will be well in future to separate the account into its two parts "Purchases" and "Sales". The account "Purchases" will then exhibit the sums due to tradesmen for stores supplied, and any balance will always be on the credit side, and the account "Sales" will show the amounts due to the Department for stock sold, any balance being always on the debit side

## Subject No IVA

### *Materials at site*

197 Materials required for works in progress are obtained either by direct purchase or through the stock suspense account. In the case of direct purchases the debit to the work is from the paid bill, in the case of receipts from stock it is from the issue part of the stock return. The extent to which materials obtained by direct purchase, which are not paid for in the month

of receipt on the works, should be included in the works' account, is discussed under subject No V No distinction, by source of supply, is necessary after the articles have reached the works

198 The present rules regarding materials at site will be found in Code, vol I, chap XII, paras 21 to 24 the orders are that the record of these materials shall be kept on the day book (*vide* form No 7C, and the other forms of day book)

199 *Account of materials*—Stress has been laid by several officers on the desirability of having an account for each work which should show the quantity of materials charged to the work up to date An officer carrying out a work knows closely what quantity of the different classes of materials are required for the quantities of the various classes of work to be executed In all cases this limit should be worked out and recorded

200 The Committee thinks that, with respect to works the outlay on which is not recorded by sub-heads, materials should be issued to the work within the limit calculated as likely to be required, and that no further accounts are necessary, the work being charged from the stock issue return or the paid bill

201 When, however, the outlay on a work has to be recorded by sub-heads, the Committee thinks that it is necessary to open the temporary sub-head of "materials at site" The principal materials only should as a rule be entered in this, purchases of petty stores should as far as possible be charged off at once to a final sub-head

202 The Committee suggests that in the case mentioned in the previous paragraph the sub-divisional officer should keep and submit a return in the form given in para 176 accompanied by a statement on the back, in this form

*Materials' account*

Description of stores.	Estimated quantity required for the work	TOTALS TO END OF PREVIOUS MONTH.			MONTHLY ACCOUNT				
		Receipts	Issues	Balance	Received	Issued	Balance		
							Quantity	Rate	Approximate value.
1	2	3	4	5	6	7	8	9	10

Columns 9 and 10 would be filled up in the divisional office

## Subject No V

### *Liabilities*

203 The question whether it be necessary or not to record liabilities in the accounts of works, and, if so, to what extent, is one upon which there has been much discussion The orders on the subject will be found in Code II, XIII, 69 We are not now concerned with the keeping of an account against grant of liabilities to be adjusted by transfer That question is dealt with under subject No IXA

204 Liabilities are of various kinds—

- (1) Orders given to other divisions or departments which will not be met by a payment in the division
- (2) Orders given to tradesmen, contractors, and others, which will be paid for in the division
- (3) Work done but not measured up
- (4) Materials supplied to stock but not paid for



- (5) Materials supplied direct to works but not paid for
- (6) Labor for a period on account of which no disbursement has been made
- (7) Contract certificates passed but not paid
- (8) Sums unpaid on contractors' certificates or on muster rolls, on which part payments have been made

205 *What classes may be included in works' accounts*—It has never been proposed to include in the accounts of works liabilities of classes 1, 2 and 3 they are too indefinite for entry in accounts. Liabilities of class 4 are now invariably taken into account, they are debited to stock by credit to purchases as a consequence of the entry of the materials in the receipt returns of stock. Sums falling under head (8) the Committee proposes should be included in the works ledger (*vide* subject No VI), under final sub-heads, the balance due being deducted on the right hand side, so as to make the net debit to the work or service correspond with the cash payment, which alone is charged off to grant

206 It is with respect to liabilities of the classes mentioned under 5, 6 and 7 that there is any question

207 *Use of works' accounts*—A few officers think that they should be able to see from their account of each work for each month, the exact rates at which they are working, others consider that rates should be specially taken out now and again as wanted. The information desired by the first of these classes of officers is not afforded to them by the present day books, but it should, theoretically, be obtainable from the present register of works

208 *Accounts to be based on cash payments*—The Committee, after carefully weighing the arguments advanced in the case, inclines to agree with the officers who think that accounts based on cash payments are sufficient for the control of works in progress. It is clear from para 204 above that under no circumstances can the bulk of the liabilities be brought into the works' accounts. It will be observed that the Code order quoted expressly excludes work done which has not been measured and certified to. It is also the fact that, apart from unpaid items on partially paid documents, the introduction of liabilities complicates the accounts greatly

209 *Rates to be worked out when required*—There should be no necessity for taking out the working rate every month for each sub-head. The executive officer, when he commences operations, settles what labor and quantities of materials he can authorise and issue, and this is a sufficient guide for some time to come. It is remarkable that some of the strongest advocates of the full introduction of liabilities into the accounts are also the strongest advocates for giving up the record of outlay on works by sub-heads.

210 The officers in favor of excluding liabilities and of basing the accounts on cash payments, consider that they can, from such accounts, get all the information regarding rates they require. When the works are completed the correct rates are, of course, available for fixing responsibility for divergence from the estimate and for future guidance in framing estimates

211 The Committee therefore recommends that the works' accounts (the entries in the works ledger, *vide* subject No VI) be, as a rule, based on cash payments only, and that no further account be taken of liabilities than to include wages unpaid on muster rolls partially paid, and amounts due to contractors on certificates on which some payment has been made

212 *Watch over liabilities*—The Committee is far from implying that officers should be in any way lax in connection with their liabilities the opposite is the case. Under the arrangement proposed it will be more incumbent than ever upon executive officers to keep their measurements and payments closely up to date, and superintending engineers and examiners should give this matter their special attention. The Committee has suggested that all important liabilities should be noted monthly on the works slip (*vide* appendix Y).

213 *Special cases*—In special cases where it seems to the superintending or executive engineer necessary, the Committee thinks particulars of liabilities on account of contractors' bills passed but not paid, muster rolls for

labor due, but on which no payment has been made, and the value of materials, not from stock, delivered at the work but not paid for, should be entered in the works ledger. The amount of all these items should be deducted in the column of the works ledger headed arrears due, and care would have to be taken, when the liabilities were discharged, that the final sub-heads were not again debited. The payments of such liabilities would be entered in the arrears column.

## Subject No VI

### *Day books and works ledger*

214 *Day books condemned*—There is a widespread feeling in the Department that the accounting in connection with day books of works is greatly over-elaborated. This arises mainly from the necessity of keeping a separate and complicated day book, with a copy thereof, for each work for each month, and from the entries in it being, theoretically, based upon liabilities instead of upon cash payments.

215 *Record necessary*—A record is required from which the officer carrying out a work, and his superiors, can see how the outlay is progressing, and from which the causes of any abnormal result can be readily traced, from which also can be gathered, for future use, the cost of the different classes of work. In short, a ledger is required (such as a merchant would keep of an adventure he had made) to show the executive engineer the particulars of his outlay against his estimate. A book is required that shall be kept correctly posted for him up to date, and to which he can refer at any moment when he needs information.

216 The works ledger idea is based on the principle that the executive engineer shall possess a record which shall show him all his payments up to date under classified sub-heads, at any moment he desires or has occasion to refer to it. The record is continuous instead of being, as the day books, for one month only.

217 The question of the extent to which liabilities should be introduced into the accounts of works has been discussed, under subject No V.

218 *Works ledger*—The Committee recommends that day books be dispensed with, and that, in their place, there should be established a works ledger in a form (*vide* appendix W) corresponding to the present register of works, but posted by individual transactions. The form is practically the same as that of the day book issued with Public Works Department Circular No. 25 P. W. of 1881, commonly known as the Military Works day book.

219 There is a large preponderance of opinion in the Department in favor of the introduction of the works ledger, to replace day books.

220 *Present day books*—Of the four present forms of day book, No. 7C is the one generally preferred, but many officers advocate the use of the day book issued as revised No. 6A with Public Works Department Circular No. 3 of 1880, or the day book 8A of 1881, mentioned in para. 218 above.

221 *Works ledger how posted*—The works ledger should have as many pages for each work as the sub-heads require. It would be posted from—

(a) The divisional and sub-divisional cash books

(b) The adjustment book

(c) Stock returns

(d) From the bills, &c., containing liabilities in certain cases (*vide* para. 213 above)

222 The entries in the divisional and sub-divisional cash books should each be numbered (*vide* para. 146 above) and carried, individually or in convenient groups, into the works ledger, and extended therein under the sub-heads of estimate that it may have been decided to keep. Quantities might be recorded opposite each entry in the works ledger, but it should be understood that the progress each month is not necessarily the sum of the quantities paid for (*vide* para. 240 below).



might, in such cases, be amplified so as to show the arrears of the three classes separately

235 *Manufactures* —In the case of manufactures the works ledger pages, which would otherwise be posted in the same way as the pages relating to any work in progress, would have in addition a credit side to show the out-turn (*vide* present form No 30B)

236 The Committee thinks that the rule in Code I, XII, 136, is too positive, and that it might be left to the superintending engineer to decide what sub-heads, if any, are necessary for distribution of the outlay on manufacture (*vide* para 371 below)

237 *Works' abstract sheet* —Whenever it is inconvenient that the works ledger should be posted in the divisional office, and it is desirable that the sub-divisional officer should keep a record in this shape, the Committee suggests the use of a sheet, for each work for each month, in the same form as the works ledger, to be called a works' abstract sheet. This sheet could be filled up as far as possible by the sub-divisional officer, and then passed into the divisional office to be completed. From the completed sheet an abstract works ledger in the form of the present register of works could be posted, and the sheet returned to the sub-divisional or other officer, who should file them successively so as to form a continuous record for each work

238 *Record of outlay by sub-heads* —Several officers of high standing and experience laid great stress on the desirability of limiting the detail of outlay in the works' accounts. It is alleged that the distribution of charges between sub-heads is frequently arbitrary. The Committee thinks that the record of outlay on all works costing Rs 5,000 and under, may, unless specially otherwise ordered by the sanctioning or controlling officer, be limited to totals under cash and stock. In the case of works estimated to cost over Rs 5,000 the record of outlay should, the Committee thinks, generally follow the abstract of the estimate, but it should be within the power of the superintending engineer to curtail or extend this as he may consider necessary

239 *Account of materials used* —This matter has been dealt with in paras 199 to 202 under materials at site, subject No IVA

240 *Progress* —It has been observed (in para 222) above, that the total of the quantities placed against payments in the works ledger cannot always be assumed to be the correct progress to date. This is because sometimes several services may be done for the same quantity, and there are incidental charges in connection with which some quantity, not homogeneous with the sub-head, may be mentioned

241 There is no difficulty in getting out the progress of the month when payments are made on a form on which the quantities, done on each sub-head, are exhibited

When payments are made on account by a sub-divisional officer to a contractor on hand receipt, as proposed (in para 76) above, and they are for a work the outlay on which has to be recorded by sub-heads, the progress will be obtained as described in para 78 above

When work is done by daily labor the progress will be obtainable from the allocation sheet (*vide* para 110).

## Subject No VII.

### *Records of the sub-divisional office*

242 The Committee attaches the first importance (*vide* paras 53 and 227) to the reduction to a minimum of the office work of sub-divisional officers. They should be free to be out on the works, preventing bad construction, and fraud of every sort. The voice of the Department is with the Committee

243 Each sub-divisional officer will require, in addition to his note book—

- |                               |                        |
|-------------------------------|------------------------|
| (1) His measurement book      |                        |
| (2) A contractors' book.      |                        |
| (3) A stock ledger,           | } if he has any stock. |
| (4) A stock return,           |                        |
| (5) A tools and plant return. |                        |



register of works, the register of revenue and other sources, a series of schedules detailing the entries in these two accounts current by heads of service, works, &c, is prepared. In these schedules previous outlay on works is brought forward and estimates and appropriations are quoted.

254 *The abstract book*—The Committee proposes to replace the cash and stock abstract books, by one abstract book, which shall contain all the transactions of the division for the month, and be posted from the cash books, the adjustment book, and the stock returns of sub-divisions, and to substitute for the two separate accounts current and the series of schedules, one classified abstract of receipts and charges in the form attached (*vide* appendix X and para 274 *et sequitur*)

255 The abstract book should be in the form of the present cash abstract book, but with such details as will admit of the monthly classified abstract being posted direct from it, except as regards the details of revenue, works and suspense, for which the register of revenue, the works ledger, and the the suspense register, are kept.

256 *Summarising*—It should be permissible to abstract the entries in sub-divisional cash books upon the cash-books themselves, and to post the resulting totals only into the abstract book. Further, no objection need be raised to the shortening, in any way feasible, of the process of posting the sub-divisional cash entries into the abstract book, provided the entries are clearly traceable from the one record into the other, and provided the practice of summarising, on separate slips of paper, is discountenanced, and no record is introduced between the cash-books and the abstract book. If, for example, ten payments relating to the same head in the abstract book followed consecutively in the cash-book, it would be sufficient to enter in the former the total of the group, but if one entry relating to the same head followed after four intervening entries relating to other heads, it might not be convenient to add this one to the previous ten, unless the practice of the office was to summarise by pages of the cash-book or by dates. The operation of abstracting would always be done in the divisional office.

257 The entries in the divisional cash-book on one date relating to one head in the abstract book, might be allowed to be summarised without separate record, and the total of the group only be posted into the abstract book. It has to be remembered that this portion of the abstract book should be posted day by day.

258 *Register of revenue, form No 32 G II I*—When the transactions are very few, no register of revenue should be necessary, the items realized can be classified in the abstract book, or the cash book can be referred to for details, but as a rule in irrigation divisions such a register is required. It would be subordinate to the abstract book and would contain the details of entries in the latter under the prescribed classification of revenue. The present form is suitable. The headings only are different in the Buildings and Roads and Irrigation registers.

259 *Register of works, forms Nos. 30A and 30B, vide* paras 218 and 232 under subject No VI

260 *Sub-register, form No 30C*—The Committee thinks that the works ledger will afford the executive engineer all the information he needs with respect to his works. An executive engineer is concerned with the sanctions and appropriations for specific works, and provided he attends to these, he should not be required to summarise his outlay under general heads of classification.

261 *Register of sanctioned estimates and of grants, form No 41C*—The two functions which this register is intended to serve should be separated, as has already been done in Madras. A register of sanctioned estimates is a record which should be kept in a permanent form, and should be continuous for years, while the appropriations last but for the year current, and need not be recorded in a permanent shape.

262 Both records should be reduced to a simple chronological shape, the register of sanctions being divided into separate parts for original works and repairs, and the former part completed by a reference to the completion

certificate or report The appropriation register or sheet should bring out clearly the total allotments to the division to date, to enable the application for letters of credit to be framed The present attempt at extensive tabulation is unnecessary

263 *Contractors' ledger, form No 36*—The balance of opinion is against the retention of this record Most officers think that the practice of keeping a contractors' ledger answers no useful purpose to government The Committee agrees that this record is unnecessary if the contractors' book be established

264 The accounts of all contractors should be closed once a year, and a certificate should be taken from each of the state of his account

265 *Register of liabilities, form No 41F* (*vide* paras 307 and 308 under subject No IXA)—The record is necessary

266 *Half-yearly stock register, forms Nos 42A and 42B* (*vide* para 186 under subject No IV)—This record can be replaced by a much simpler one, for the year

267 *Half-yearly tools and plant register, forms Nos 42A and 42E* (*vide* para 328 under subject No XII)—This can be simplified, as suggested for stock

268 *Half-yearly road metal register, form No 42A*—This record will not be required (*vide* para 337 under subject No XIII)

269 *Stock sub-ledger, form No 42C*—The Committee does not think that a ledger in this form will be necessary

270 *Road metal rate book, form No 43B*—This register is required (*vide* para 339 under subject No XIII)

271 *Suspense register*—It will be seen from para 286 below, that the Committee suggests that an executive engineer's record of debits and credits to the suspense accounts, miscellaneous advances, purchases, sales, London invoices, London stores, deposits, &c, should in future be made in a book ruled in a tabular form instead of as now on loose sheets

272 The Committee recommends that the following should be the account records of the divisional office

*Principal books—*

- Cash book
- Adjustment book.
- Abstract book

*Subsidiary books—*

- Works ledger
- Suspense register
- Revenue register

*Miscellaneous—*

- Register of buildings.
- Estimate register
- Allotment sheet.
- Rent roll
- Liabilities' register
- Road metal rate book
- Balance returns of stock, tools and plant, road metal, &c, &c.

When the divisional officer himself makes disbursements for works or stores, he will have to keep a contractors' book (*vide* para 67)

## Subject No. IX

### *Returns to examiner*

273 At present an executive engineer's monthly accounts are made up of entries in several books, and of a large bundle of separate documents, of most of which copies have to be made for submission to the examiner Under the

system recommended by the Committee an executive engineer's records would all be kept in the shape of books, and the present system of separate documents, with office copies thereof, would be abandoned. His accounts to the examiner would consist of extracts from these books, entered on forms, printed as far as possible, and accompanied by the original vouchers.

274 *Monthly classified abstract*—Form No 31A as modified by standing order No 24 of 16th July 1887, enumerates the documents forming the monthly accounts at present. It enumerates a large number of separate documents. The Committee thinks that these numerous documents, consisting of two accounts current and a multitude of schedules, can be replaced by one classified abstract of receipts and expenditure with opening and closing balances (*vide* para 254). The original vouchers of payments and receipts would accompany this.

275 The Committee recommends that this classified abstract (*vide* form attached as appendix X) should exhibit the transactions of the month only.

276 The classified abstract would be prepared from the abstract book, reference being made for details to the works ledger, the register of revenue, and the suspense register. It would embrace the particulars of the month which are now given in the cash and stock accounts current and in the different schedules of receipts and expenditure. The entries would be detailed to the same extent as at present, and would be supported when possible by vouchers.

277 The outlay on works would be entered in one sum for each individual original work, or item of repair separately sanctioned. Each entry would bear a number, and in support of this number there would be a docket, on the outside of which the name of the work and the outlay to date would be shown, and the vouchers of the debit in the month would be enumerated, and inside of which the vouchers would be attached. The outlay on stock, establishment, &c, would be similarly shown and supported.

278 It is necessary to give the details required for clearance of accounts with other departments, as well as for the compilation of annual and other accounts required by this Department.

279 There would be no attempt to give, in the classified abstract, the total outlay to date or during the year, and neither the estimate nor the appropriation would be entered. The executive engineer has this information in his works ledger, and the examiner has it in his sub-register.

280 For convenience of compilation in the divisional office, and of booking and audit in the examiner's office, the classified abstract might be compiled on separate sheets in any sub-division found to be suitable. As far as possible the headings should be printed, no new head should be begun at the foot of a page totals should be carried forward. The compilation should be continuous, so that when the separate sheets are placed together they may make one document. The following sub-division will indicate what is meant.

*Receipt side—*

Civil department,	} each might be on a separate sheet of paper.
Other remittance accounts,	
Revenue heads,	
Deposits, &c ,	

*Expenditure side—*

Civil department,	} each might be on a separate sheet of paper
Other remittance accounts,	
Expenditure against each grant,	
Deposits, &c ,	

281 *Form No 31A*—If the Committee's recommendations be adopted, the monthly accounts will consist of one classified abstract, on which will be noted what vouchers are submitted with it. There will, therefore, be no necessity for a list enumerating the documents submitted as the monthly accounts. The accountant's certificate may, the Committee thinks, also be dispensed with, he being required to sign the classified abstract and the original vouchers, this signature implying full responsibility to the extent defined in the Code.



282 *Form No 31B*—There is a very strong feeling in the department against the certificate now required in form No 31B, and this the Committee thinks is justified. The Committee recommends that, instead of trying to tie up officers to routine duties in the manner this certificate contemplates, government should trust to their honor and zeal, and reckon personally with those who show a tendency to carelessness, instead of inflicting on the department as a whole a grievous burden. To comply fully with the terms of this certificate an executive engineer would have to check the individual entries made by the accountant in the divisional books, which appears to the Committee neither desirable nor necessary. The Committee thinks that, unless the circumstances are very exceptional, an executive engineer should sign his accounts himself, and that no certificate of any kind should be required of him, but that when he is prevented from signing them, he should be required, by an order entered in the Code, to report to the examiner as soon as possible after submission of accounts, in simple and direct terms, that he accepts responsibility for the accounts submitted.

283 *Schedules of receipts and expenditure, forms Nos 32A to 32F, 32G to 32O*—The entries would appear in the monthly abstract, detailed to the required extent (*vide* paras 276 to 280 above).

284 *Form Nos. 32G, H and I, register of revenue*—The Committee suggests that the details necessary under this head should be furnished in the classified abstract as was done when the old form was in use. It has been recommended above (*vide* para 258), that the register be retained when necessary as a record of the executive engineer's office. It removes the necessity for an inconvenient extension of the abstract book.

285 *Form No 32O*—This would form the main part of the classified abstract, and each entry in it would be supported by the docket and vouchers alluded to in para 277 above. The entries would follow each other by funds,\* budget heads,† departmental‡ and service§ heads.

286 *Suspense accounts, forms Nos 32P, 32R, 32S, 32T, 32U, 32V, 32W* (*vide* para 127 above)—The Committee suggests that the suspense accounts of executive engineers should be kept in books, and not on loose sheets as at present, that the books should be ruled so as to allow of a single record of the transactions sufficing for all purposes until the adjustment is completed, or to the end of the official year, and that the constant repetition, and the copying involved by the present system, is unnecessary. A form such as the following is suggested.

*Register of miscellaneous advances of B division for twelve months ending 31st March 1889*

Particulars of advances	Debits	ADJUSTMENTS				Outstanding
			Aug 1888	Mar 1889	Total	
<i>June 1888</i>						
Advance of salary to T Robinson, Supervisor	100	.	50		50	50
<i>September 1888</i>						
A B for labor to be supplied	300	...	.		...	300

All the separate accounts (*vide* para. 271 above) would be kept in one book.

287 *Check of outstandings*—It is also suggested that the outstanding balances need not be reported to the examiner monthly, but only annually at the end of the official year, and that the necessary check now made monthly, in the examiner's office may be effected by test audit at the examiner's inspections. There would thus be two audits at least of the items in suspense within the year. Officers who allow items to go into a suspense account would be held distinctly responsible for their removal therefrom at the earliest possible date. They should frequently inspect this register.

288 These remarks apply equally to all the suspense accounts. If the views presented here be adopted, it will be necessary merely to detail the month's transactions under each suspense account in the classified abstract.

289 *Form No 32Q*—It is suggested that the necessary particulars should be recorded in the monthly classified abstract.

290 *Form No 32X—Famine relief*—A separate sub-division of the classified abstract might be prepared when the need for this head arose.

291 *Form No 32X 1*—The details might be given in the abstract.

292 *Form No 32Y—Rent roll*—The recoveries would be included in the monthly abstract. It seems quite possible to keep an effective watch over arrears by a half-yearly return in this form (modified to the extent necessary) and by the examiner's test audit at his inspections. It is suggested that the local government or administration might decide when any class of buildings should be excluded from this return. The rent returns of Bombay are at present receiving much attention, which they require, but it is not to be expected that questions regarding rents will long continue to occupy their present prominence there.

293 *Work vouchers, &c, forms Nos 33A, 33A 1, 2, &c, &c*—Returns in this shape will not be required by the examiner, if audit by sub-heads be dispensed with, and other reforms suggested be adopted.

294 *Form No 34*—This summation of outlay on requisitions is necessary to prevent sums irregularly spent remaining in the balance of unaudited outlay, as the requisitions themselves would only be sent to the examiner when the work was finished. It can, when required, be given in support of the classified abstract. Outlay on a requisition in a month prior to the month of completion may as at present remain unaudited until the requisition comes to hand (*vide* para 452 below).

295 *Form No 37*—This, when required, may be treated as an ordinary voucher. It should be prepared by the officer ordering the transfer of charge, and be reduced to a simple record of facts which have occurred, without any attempt at elaboration under heads of account. The entries would be carried into the adjustment book.

296 *Form No 38*—This form will become unnecessary, if audit by sub-heads be dispensed with. (*Vide* form of works slip given as appendix Y.)

297 *Form No 36*—The question of dealing with objectionable items in the monthly accounts is discussed separately under subject No XI.

## Subject No. IXA

### *Applications for letters of credit*

298 The forms prescribed to be used by an executive engineer in applying for letters of credit are—

Application for letter of credit	No 41D
Totals of cash abstract book	„ 41E
Register of liabilities	„ 41F
Details of proposed outlay	„ 41G

Nowhere more than here is the redundancy of the present system apparent

299 *Approximate account*—The returns in form No 41E are understood to be utilised for an important purpose other than that which appears on the surface, *viz*, for the preparation of an approximate account of revenue and expenditure required by the Government of India and the Secretary of State.

300 It appears probable that less labor would be entailed by separating the functions of approximate account and application for credit

301 *Examiner's check*—It has to be remembered that when the applications for credits are within the total of the allotments placed at the disposal of the executive engineer, any check by the examiner over details cannot possibly be effectual to prevent unauthorized outlay, for the executive engineer if minded to commit an irregularity, which is far from being assumed, has perfect liberty to draw cheques for any service he wishes, once he receives the credit

302 It is suggested that the only check over issues of letters of credit to an executive engineer should be the total amount of allotments of funds placed at his disposal up to date, and that this, with the audit of his outlay by appropriations, is all that is necessary or can be effective. If it were observed that an executive engineer, who had received his allotments of budget credits for nearly the whole year, was asking for letters of credit at a rate which would be likely to exhaust them long before the end of the year, the examiner should invite the attention of the superintending engineer or the local government to the case. It would rest with these officers to take any special action, the examiner would simply refuse further credits when the allotments were exhausted and object to outlay which was not covered by appropriation.

303 *Approximate account*—The Committee suggests that in place of the voluminous form No 41E, called "Totals of cash abstract book," which extends over many pages in the form book, while only a few of the entries in it are really required, there should be established a small approximate account, to be prepared in the following shape, on the accountant's responsibility, and submitted to the examiner, not later than the end of the second week in each month, for the previous month

*Approximate account of revenue and expenditure in———division during the month of———188*

REVENUE			HEADS	EXPENDITURE		
Imperial	Provincial	Local, imperial		Imperial	Provincial	Local, imperial
			Civil works			
			Military works			
			Irrigation, major works			
			Do minor works			
			Irrigation, capital account			
			TOTAL			

In an ordinary B & R division only the first line would be filled up, in a Military Works division the second in an Irrigation division the last three, but there would be no entries under revenue on the last line

304 *Form of application*—With this procedure, and with the check by the examiner over applications reduced to the point at which alone it can be

effective, the application for letters of credit might be reduced to one document of the simplest character. The following form is suggested

*Application for letters of credit for October 1888*

	Rs	Rs
Grants allotted to the division up to date		000
<i>Deduct—</i>		
Already accounted for (accounts to 31st August 1888)	000	
Spent but not accounted for (approximate outlay in September)	000	
Liabilities, to be adjusted in transfer	000	
Cash balance	000	
Drawing account balance	000	000
		<hr/>
Balance	.	000
<i>Add—</i>		
Required for non-budget purposes (to be stated in general terms with amounts)	000	
Working balance	000	000
		<hr/>
Total		000
<i>Deduct—</i> Miscellaneous receipts expected		000
		<hr/>
Amount for which credits may be issued		000
Amount now applied for (to be detailed by treasuries)		000
305 <i>Form No 41D</i> —This might be altered as suggested in the preceding paragraph		
306 <i>Form No 41E</i> —This might be replaced by the simple approximate account suggested in para 303		
307. <i>Form No 41F</i> —This might be retained as a record of the executive engineer's office, but the copy now sent to the examiner need not go in future, except with the applications for credits for February and March		
308. The register is of course meant for liabilities which will not be discharged by the executive engineer himself, but by some other officer on his behalf and be debited to him in transfer		
309 <i>Form No 41G</i> —A control by the examiner over the funds for different works is aimed at in this form, which not only appears undesirable, but which it is impossible to make effectual. The Committee submits that the only proper and effectual limit is the total of the grants placed at the executive engineer's disposal, and that this form may be dispensed with, without impairing the budget control. There will of course be the audit by appropriation on the monthly abstract		

## Subject No X

### *Audit of works' accounts by the examiner*

310 *Meaning of "sub-head"*—In the Code (*vide* paras 15 and 16, chap XII, vol I), the term, "subhead," is defined, but that definition is not carried through the Code and the forms. The term "sub-head" was, therefore, used by the Committee in its discussion with departmental officers, in the popular acceptance of class or description of work, such as brick-work, centering, arching, &c, &c, and this use of the term is adhered to in this report.

311 *Audit by sub heads*—It is generally admitted that the orders requiring the examiner to audit the outlay on works by sub-heads of estimates, have failed to secure the end in view, and it is believed that they have given rise to an immense amount of unfruitful correspondence, wasted valuable time, and caused much friction between the accounts and the executive branches of the department. The examiner's audit must necessarily be of a formal character and cannot take account of circumstances affecting rates or even totals of sub-heads, which may be at once recognisable by the superintending engineer. Further, the examiner cannot in such cases indicate the remedy when he points out the defect.

312 It is the general opinion of the officers consulted, and the Committee concurs in the view, that the examiner's audit by sub-heads should be abandoned, and that the check necessary to secure adherence to sub-heads of estimate should be left to the executive and the superintending engineers. The question of the detail of expenditure by sub-heads necessary in the works ledger has been discussed in para 238 under subject No VI.

313 *Limit of audit*—The examiner's audit of outlay on works should, in the Committee's opinion, be limited to a check by (1) the amount of the estimate, (2) the amount of the appropriation, and (3) vouchers of the payments. If in any case a sub-head exceeded, say, Rs 50,000, the Committee thinks it might be treated in audit as a separate work.

314 *Works slip*—In order to enable the executive engineer to control his works, he would have, in his works ledger, a record of the outlay on each separate work by sub-heads when necessary, and when the superintending engineer considered it necessary he would require the totals of the works ledger under each sub-head to date, in contrast with the estimate figures, to be reported to him monthly or at longer intervals (*vide* para 228 above).

315 The most suitable form for this purpose would be one adapted from part I of the present form of work voucher. This might be called the work's slip (*vide* appendix Y). In this the estimate figures should be printed. There should be as large a space as convenient given for remarks.

316 *Superintending engineer's responsibility*—The responsibility for the watch over the sub-heads of the estimate would thus rest with the superintending engineer. He, and not the examiner, can exercise an efficient check, as he can allow deviations within such limits as may be prescribed for the circumstances of each work and province, or, if beyond his powers, can refer at once, on the merits of the question, to the chief engineer. By the acceptance of this proposal no really useful check will be abandoned, and an efficient control which will operate quickly, and without troublesome correspondence, will be substituted for a procedure which is cumbersome and dilatory, and which tends by its prolixity to be practically inefficient.

317 *Work vouchers disappear*—The work voucher would disappear except in so far as a return in the shape of part I thereof would be submitted, when called for, to the superintending engineer. This would obviate the necessity of keeping a duplicate register of works to send to the superintending engineer as is now done in some provinces.

318 *Use of works slip for administration*—It is possible that, with information in the shape here proposed regarding individual works supplied to them, superintending engineers may be able to dispense with much that is now contained in the administrative progress reports which they require executive engineers to compile and submit (*vide* paras 430 to 432 under subject No XXV).

## Subject No XI

### *Objectionable items*

319 *Initiation of objections*—The question whether the present practice of requiring the executive engineer to initiate objections on his accounts is a good one, was considerably discussed, and opinions are about equally divided, upon it.

320 It has to be remembered that, if the recommendations made under the previous subject, with respect to audit by sub-heads, be adopted, the entries in the divisional statement of objectionable items will be much reduced in number, and the great majority of objections which are now entered will have been dealt with by submission of the works slip to the superintending engineer.

321 It has also to be borne in mind that when an executive engineer incurs any liability for which he has not sufficient authority, he should not wait, and probably does not wait, for the objectionable items' statement to remind him of the necessity of regularising the outlay, but at the time of ordering the expenditure, he should at once take steps to obtain sanction.

322 *Establishment objections*—It has further to be borne in mind that, if the proposals made with respect to salary and other establishment bills (*vide* subject No XIV), are accepted, the examiner will have to raise his objections on account of salaries and travelling allowances at the time he audits the ordinary monthly accounts. The question then comes up whether personal objections arising out of the audit of salaries and allowances should be entered in the ordinary objectionable items' statement, and, if so, by whom. They cannot well be entered by the executive engineer, as, if he had thought the claims irregular, he would not have paid them.

323 *Initiation to be left to examiner*—The Committee thinks it is the preferable arrangement, for the convenience of the department, that the initiation of objections connected with the monthly accounts should be left to the examiner. The Committee further thinks that the examiner should advise objections of a personal nature, relating to members of the engineer and upper subordinate establishments, on a special form of a size and shape suitable to be handed to the officer concerned for his replies. The amount against each individual or group should be included in the objectionable items' statement, and kept upon the examiner's office registers of items objected to, until adjusted. Objections relating to members of the lower establishments might be grouped according to bills.

324 It is further suggested that such items need not be passed into the miscellaneous advance account, and that the considerable labor involved at present by so doing can be saved. Opinion is practically unanimous on this point.

325 It is expected that the objections arising out of the audit of expenditure on works will be reduced to a small number. According to the Committee's proposal the objectionable items' statement would reach the executive engineer within a month after the submission of his accounts, most of the causes of objection would probably by that time have been removed. The executive engineer would enter his explanation and return the statement through the superintending engineer to the examiner. The superintending engineer would probably be able to dispose of those items which had not been already settled.

## Subject No XII

### *Tools and plant*

326 *Present forms prescribed*—The forms at present prescribed are—

Account of daily receipts and issues	Form No 9
Monthly statement of receipts, issues, and balance	„ 12
Half-yearly balance return	„ 13
Ditto register	„ 42A and 42E

The unit is the sub-division, but No. 42A is a divisional office record kept by sub-divisions.

327 *Proposals*—The simplest procedure seems to be that each sub-divisional officer should submit to the divisional office a monthly return of receipts and issues of tools and plant in the form suggested for stock in para 176 under subject No IV. The individual receipts and issues he can record in this form as they occur, and he should keep a simple list showing the distribution of his tools and plant in the custody of contractors or subordinates.

328 The divisional office should keep up a register by sub-divisions in the form suggested for stock in para 187, but of course without prices.

329 *Taking stock*—Once a year the divisional officer might send out to each sub-divisional officer a list of the articles he ought to have in his possession, and this the latter should return, noted upon after the manner indicated by the form suggested in para 181 above.

330 In the executive engineer's godown a tools and plant ledger might be kept in the form of the stock ledger, and in sub-divisions, no record should ordinarily be required in addition to the form and list referred to in para 237.

1

Revised

...the for

To be prepared in sub-C Form 13 Half-yearly register

To be prepared for 431 (Corresponding to form 12 for stock)

*Objections*—In actual practice the above arrangement is not

331 Again, as the contract for supply in each mile has been accepted

335. Consequently, in actual practice form 19 has been, as a rule, submitted

226 *Proceedings* The Committee recommends, therefore, that the use of

337 This latter procedure will obviate all necessity for using forms 13 and

338 Check by actual measurement would be provided for by an additional

330 It would be obviously convenient to have form 13A lithographed on

ADP is a useful record and should always be maintained. The data in it

## 22

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

341 *Salaries*.—There appears no danger to the State in dispensing with

of each month, those salaries which he admits to be due. An arrangement might be made to send to the examiner, in doubtful cases, a slip stating the particulars of the new appointment, &c, which he might return with an intimation whether the claim was regular or not.

342 Again, there seems no advantage in having separate forms for the bills and the acquittances. The form of bill might be so far modified as to allow of the acknowledgments being taken on the bills themselves.

343 Further it is often inconvenient to have one bill only for the whole division. It should be permissible to prepare the salary bill in as many parts as might suit the disbursement of salaries. The bills should all be prepared in the divisional office.

344 *Salary payments*—The Committee, therefore, recommends that the salary bill and the acquittance roll be combined that salaries be in all circumstances paid as they fall due, at the option and on the responsibility of the executive engineer that the payments be duly acknowledged by the payees on the salary bills, that the bills be prepared in any unit convenient for disbursement, that the receipted bills be attached to the executive engineer's monthly classified abstract along with other vouchers, and that the examiner's audit be conducted, as now, on their receipt in his office.

345 Form No. 21B might be discontinued, the particulars being recorded on the salary bill as is now done for gazetted officers. Deductions for income tax, funds, &c, should also be entered in columns in the bill.

346 *Travelling allowances*—Each officer making a claim for travelling allowances must at one time or other set forth in detail the particulars of that claim. The Committee proposes that a simple form should be established in which he can, without trouble, put these particulars down, and that this form should be used for purposes of payment and audit, without transcription of the particulars into any other form.

347 *Travelling allowance payments*—The form here referred to would contain the same particulars as the present journal, but might be simpler. Each claim would be submitted to the controlling officer in the form in which the officer stated it, and the Committee recommends that it should be paid on being passed by him, the receipt of the officer who travelled being taken on it.

348 In the case of subordinates drawing usually horse allowance and occasionally mileage, a single bill for the whole division or separately for subdivisions might be drawn up. In this would be included any allowances due to petty establishment.

349 *Controlling officer*—It is suggested that the controlling officer should be, as the travelling allowance rules contemplate, the officer who has authority to order or forbid the journey.

350 *Recommendations*—The Committee, therefore, recommends that each officer should submit a combined journal and bill (practically in the form of the present journal, but somewhat simplified), that after this document shall have been passed by the controlling officer, the amount should be paid, the bill duly receipted being submitted to the examiner for audit with the executive engineer's monthly accounts.

351 *General remarks*—It would be necessarily a condition of allowing salaries and travelling allowances to be all paid prior to audit, that the amount of an objection raised by the examiner should be recovered, without question, from the next issue of salary or allowance to the officer concerned. The objections should (*vide* para 323 under subject No. XI) be advised by the examiner on personal slips, and if the retrenchment happened to be wrong, the amount should be recharged and paid on the next following bill.

352 If desired, the salary and travelling allowance bills could be submitted to the examiner separately from the other vouchers of the month's classified abstract.

353 A suggestion was made to the Committee that subordinates having imprests might be allowed to pay their actual railway fare and other actual expenses of travelling on duty, out of their imprests. This might be allowed if the above suggestions for prompt payment be not approved. The fares of



peons and such like persons are paid out of the public funds now, except when the officer whom they accompany pays them out of his private purse

354 *Office contingencies* — With respect to office contingencies, the Committee suggests that the contingent bill should be looked upon merely as an abstract for grouping petty items together, that it need not be passed through the superintending engineer, and that formal audit of it by the examiner need not be advised to the executive engineer but that it may be audited along with other vouchers of the monthly abstract. It is also suggested that the certificate on the contingent bill should be abolished or so far modified as to require from the signing officer nothing more than he can fairly of his personal knowledge assert

355 *Budget allotments* — Budget allotments would have to be made to the executive engineer for office contingencies, salaries and travelling allowances

#### *Travelling allowance rules*

356 There is a very general feeling in the department that the travelling allowance rules are unnecessarily complex. The Committee recommends the issue, in sheet form, of a table of rates and classes of allowances admissible in this Department, with brief notes of the main conditions, leaving the travelling allowance rules to be referred to for all subtleties of interpretation. The Committee thinks that what it suggests here could be brought within a small compass.

### Subject No XV

#### *Workshops*

357 *Various descriptions of workshops* — The workshops of the department are of two classes (a) such shops, small or large, as may be required at the site of a large work, or in a division in which several, it may be many, works are in progress, (b) large workshops like those situated at Rurki, Seelpore and Madras. Shops of the first class are under the charge of the executive engineer of the division, whereas shops of the second class constitute special charges

358 *Small shops* — For the smaller workshops of the first class (the ordinary divisional workshop), the method of muster roll and daily report, with payments on contract forms when applicable, and a debit and credit account in the works ledger, which suits the case of works with many sub-heads and manufacture accounts, would, it is thought, generally answer. The value of stores would be charged to the jobs by means of the returns of stock issues. The articles turned out might be priced at such rates, approximating the real cost, as would exhaust the debit side of the page of the works' ledger set apart for the shops

359 *Large divisional shops* — For the larger workshops of the first class, where the number of separate jobs undertaken is many, where the incidence of debit is frequently different, or where precision as to the cost is necessary, it will probably be advisable to take account of details subordinate to the several accounts in the works ledger. In this case a series of accounts, as laid down in paragraph 1796 of the Madras Code, would probably suit well

360 *Allocation of charges* — The Committee would recommend that direct labor be allocated to individual jobs by a time sheet, and stores by an abstract of materials issued, and that all general charges, and charges for supervision, be apportioned monthly to works in progress by means of percentages which would, as near as may be, exhaust the debits

361 *Unpaid wages* — The Committee would further recommend that unpaid wages be deducted from general charges

362 *Object of workshop accounts* — It has to be borne in mind that government is not a manufacturer entering into competition with his neighbours, and, therefore, finding it to him of vital importance to know exactly what each article he turns out costs him. Government merely requires accounts of jobs for the purpose of economical management, and this can, it is thought, be effected by specifically allocating the direct charges only, and adjusting the rest by percentages. The only real test of economy

in such shops is comparison with what the manufactured article could be purchased for at some private factory, inclusive of carriage to the government shops, or other place where it is wanted. This can, when necessary, be taken out specially from the records. The Committee cannot recommend that, in order to obtain a near approximation to the actual cost, the elaborate system of accounting adopted in railway workshops be followed. This was probably introduced with the idea that, as English manufacturers pay for such elaboration, it must be right that the Government of India should have it, but the cases are dissimilar.

363 *Estimates desirable* —The Committee thinks that all jobs undertaken in workshops and costing over Rs 200 should be separately estimated for, and that there will be great danger of waste unless there is this comparison of cost with estimates. These estimates need not go beyond the officer in charge of the shops or the executive engineer of the division, but should be inspected by the superintending engineer at his visits.

364 *Special accounts* —For large workshops such as those at Runk, special system of accounts would be required.

365 *Private work* —Opinions are divided as to the extent to which the policy of taking work from outsiders in order to retain skilled workmen, should be recognised, and whether and to what extent latitude in adding percentages to the direct outlay of labor and stock on such jobs, should, in the interests of the State, be permitted to the executive engineer. The balance of opinion is in favor of taking private work and allowing latitude with respect to percentages. In out of the way places it is probably advisable to take private work to retain skilled workmen, but nothing should be done to interfere with the success of private workshops in operation or the starting of new ones, and no relaxation in the rules requiring previous payment is recommended.

366 The Committee thinks that in all cases full cost, direct and general, should be charged, but that the addition and the amount of percentages to cover profit and indirect charges might be left to be settled according to local circumstances by the executive engineer and the superintending engineer.

## Subject No XVI

### *Estimates*

367 *Subjects of enquiry* —Opinions were invited whether there was any work done in the preparation of estimates for original works and repairs respectively, which could be dispensed with, without restricting the efficient control of the superintending engineer or higher authority, and also whether details were in every case required in an estimate, whether there might not be a limit of say, Rs 200 up to which details might be dispensed with by the sanctioning authority at his discretion.

368 *Use of measurement registers* —Inquiries were made how far details were required in estimates when measurement registers ought to be available for reference (*vide* para 76, chap VII, vol I of Code).

369 *Mileage rates* —It has been suggested that in cases like repairs of canals and unmetalled roads, a simple mileage rate, based on actual experience, might efficiently take the place of elaborate estimates showing quantities of the various classes of work.

370 *Original works* —The general opinion appears to be that, with regard to original works, no diminution of the full detail now required in the preparation of the estimate, is desirable. In order to ascertain what a work, however small, is likely to cost, it is usually necessary to make some calculations, and it is no great trouble to enter these in the body of the estimate. It is feared that the general acceptance of lump sum estimates for petty works, might lead to loss to the State, but it is thought that, if for any special reason it were difficult in any case to furnish details of an estimate under Rs 200, these might be done without. The quotation of a plinth area rate for buildings of a particular class in one locality will often save detailed estimating for small works.

371 *Repairs and manufactures*—As regards estimates for repairs, the opinion generally held is that there is room for reduction of work. This is thought to be the case also with respect to estimates of the cost of manufacturing operations. It is thought that the inclusion or omission of details of the items of cost making up the debit to a brickfield or a lime kiln should be left optional with the superintending engineer (*vide* para 236 above), and that in the case of periodical repairs measurement registers should be referred to.

372 *Abstracts of estimates*—The Committee, however, thinks that in many cases a considerable amount of future work in accounting can be saved by attention to the preparation of the abstracts of estimates, *e.g.*, by the grouping together of several classes of similar kinds of work into one sub-head, under which they naturally fall, and striking a general rate for the total quantity of work. In a building, for instance, there may be several classes of doors and windows estimated for at different rates, which under the present system are accounted for separately by sub-heads. The Committee thinks that in such a case the details by which the total cost is arrived at should be entered in the body of the estimate, but that all that is necessary in the abstract is to enter under one sub-head the total cost of one kind of work estimated for at the resulting rate.

373 *Grouping of works or sub-heads*—It may happen that several works are being built either close to each other or along a line of canal or road. It may often not be easy to keep the issues of materials and other charges separate. In such a case it is argued that it would be well to frame the estimate for the classes of work in the whole group and treat the group as one work. Again, it may happen that it is desired to ascertain the cost of each of a group of works, but that there is no special object in finding out what the classes of work in any one cost. In this case the estimates might be framed by component works, instead of by kinds of work.

374 *Record of outlay*—It has to be remembered that the executive engineer's record of the expenditure will, unless otherwise specially ordered, follow the estimate, the abstracts of the estimates should therefore be framed on consideration of the detail in which it is desired that the expenditure should be recorded.

375 *Abstracts not required by examiner*—The examiner will not require the abstracts if his audit by sub-heads be abandoned.

376 *Draftsmen and estimators*—It has been represented to the Committee that a considerable amount of the time of executive engineers is often occupied in such work as taking out quantities from plans and sections, which can be done quite as well by efficiently trained draftsmen, and the Committee recommends that the attention of principals of engineering colleges in India be drawn to this point with a view to the education of men specially as draftsmen and estimators. It should also be noted, that in many cases men who can take out quantities, are useless as office estimators, on account of a defective knowledge of English.

### *Centralising the preparation of estimates*

377 The general opinion of officers consulted is, that the present system of preparing estimates divisionally is a good one, and should only be departed from under exceptional circumstances, such as the preparation of a large project for which the executive engineer in charge of a division has neither time nor establishment, or where special technical skill is required, as in architectural work. It is asserted that an officer preparing estimates in a central office would often be at fault for want of local knowledge, no matter in what detail data had been supplied to him.

378 No doubt cases have occurred where work has been delayed for want of detailed estimates, under circumstances fairly entitling the executive engineer to special assistance of some kind, but the Committee thinks that such circumstances should be left to local governments to deal with, and that no alteration of the general principles now followed is required.

## Subject No XVII

*Appropriations for works and repairs*

379 *Conditions vary*—The circumstances of the Buildings and Roads Branch differ considerably from those of the Irrigation Branch, in the matter of supply of funds

380 In the Buildings and Roads Branch, the source of supply is greatly diversified. It is necessary that this should be so, but in the Irrigation Branch it is the exception that funds should be supplied from more than two sources

381 *Proposals*—The Committee recommends no change in the matter of appropriations for original works, repairs, and services, chargeable to grants falling under Buildings and Roads heads, but with respect to the Irrigation Branch the Committee thinks it feasible that the grants should be allotted at the beginning of the year, to divisions, under the following heads—

Each "major work" separately

Each "minor work" for which capital and revenue accounts are kept, separately

All other "minor works" grouped,

Under—

(a) Capital

(b) Revenue, (1) Improvements and extensions, (2) Repairs, &c

382 The terms "major work" and "minor work" are used here in the Budget sense, not in the departmental meaning. If this recommendation were adopted, one sum would be placed at the beginning of the year, at the disposal of each executive engineer, for capital outlay on all works of construction of such a major work as the Ganges Canal, another sum for improvements and extensions, and a third for ordinary maintenance and establishment

383 Full details as now should be given in the budget-estimates, but the executive engineer should be subject to the limits suggested in para 381 only

384 The executive engineer would be responsible that the outlay, for which he received sanction, on works estimates, was kept within the divisional totals, and the examiner's audit would be conducted on the same basis

385 It is alleged that this procedure would save much correspondence, and the Committee thinks it would entail no evil result. In fact the Committee would like to see it left optional to the local authorities to introduce a similar procedure in the Buildings and Roads Branch, if it seemed applicable

386 *Audit objections*—The Committee thinks that objections by the examiner for want of appropriation need not be raised before July, if estimates have been duly sanctioned for the works on which the outlay is incurred

## Subject No XVIII

*Completion reports and completion certificates*

387 The orders regarding completion reports are contained in paras 38 to 44, chapter IX, volume I of the Code

388 Details are not required in the completion reports of works costing less than Rs 2,500 each. A number of such works are allowed to be scheduled together in one completion report

389 *Details in reports*—Provision has been made in the suggested works ledger for the record of outlay and of progress in any detail considered necessary by the executive engineer, the superintending engineer, or higher authority. It is questionable what end is served by the detail in full in the completion report of the quantities of work done as compared with the estimate

390 The orders in paragraph 42 quoted above, as modified by standing order No 78 of 21st September 1887, appear to meet all requirements with respect to works under Rs 2,500, and the Committee would recommend their application to all works the outlay on which is not recorded by sub-heads

391 *Limit of use of detailed reports*—The Committee would recommend that when the account of a work is kept by sub-heads, it should not be

necessary, except under special orders of the sanctioning authority, to submit a detailed completion report as in form 45A, if the total cost be within five per cent of the estimate. In such cases a simple certificate showing the total estimate, total outlay and the excess or saving, &c, and bearing the office number of the record plan, should be sufficient. When the total amount of an estimate has been exceeded by more than five per cent, the sanctioning authority may either call for a revised estimate or accept a completion report in a form similar to the present form 45A, full explanation being given of the causes of excesses and savings under each sub-head.

392 *Completion certificates* —The reference to plan and estimate on the certificate on forms 45B and 45D should be cut out. It gives rise to interference by officers of departments for which the Public Works Department does a service, with professional details, which as a rule, they are not competent to pronounce an opinion upon, and frequently causes much delay.

## Subject No XIX

### *Relation of executive engineers to the examiner*

393 The Committee has made, in paras 31 to 35 above, some remarks on the general question of the duties of the examiner as they affect executive engineers. To these it would invite attention. While not in any way desiring to recommend interference with the independence of the examiner as an auditor and accountant the Committee thinks the suggestions made in the paragraphs quoted should be given effect to.

394 The Committee further suggests that it should be necessary for the examiner to obtain the sanction of the local government or administration and the accountant-general, Public Works Department, before introducing any new return or form, or making any fresh general call upon executive engineers for information.

## Subject No XX.

### *Accountants*

395 *Divisional accountants* —The Committee is of opinion that it is necessary to have in the office of every executive engineer, who compiles his own accounts, a properly trained accountant. No one should be entrusted with this duty who has not passed the necessary educational tests and also a test in book-keeping, and who has not had at least two years' actual experience in accounts in an executive engineer's office or under a sub-divisional officer.

396 *Head of the office establishment* —The Committee thinks that, as a rule, the accountant should be treated as the head of the executive engineer's office establishment. Where there is a separate and independent head clerk there is often much friction and interruption to business. The man entrusted with the accounts needs a complete grasp of the business of the division, and he should be in a position to distribute the work in the office to the clerical establishment.

397 The Committee is of opinion that the definition of the duties of the accountant and of his relation to the executive engineer contained in Code I, III, 143 to 146, and II, XIII, 7, is suitable. Some slight verbal modifications are required to make the subject quite clear.

398 *Special arrangements sometimes necessary* —The Committee recommends that special circumstances should be recognised as calling for exceptional arrangements, *e g*, when the construction of a large original work embracing special difficulties is undertaken, an accountant of a senior grade, or even a gazetted officer of the accounts branch with special powers, might be posted to relieve the executive engineer of much of his office work.

## Subject No XXI

### *Transfers of charge of divisions and sub-divisions*

399 The orders regarding transfers are contained in paras 111 to 133, chapter X, excepting para 130, volume I of Code, and on forms Nos 129C and 129D.

400 It has been the custom in some parts of the Department (and this is in fact ordered on the form) to require the form, provided for use on the occasion of a transfer of divisional accountants (129 D) to be filled up by the relieved and relieving executive engineers, when a division changed hands, but it is understood that it is not the intention to use this form in such cases in future

401 *Use of a catechetical form*—The question arises whether any form containing detailed questions for answer is necessary, and, if necessary, what shape it should take. It will be observed that by para 121 and 122 of the portion of the Code quoted, the relieved officer is required to give a memorandum to the relieving officer descriptive of the division generally and explaining all circumstances requiring special notice or action

402 *Permanent and temporary transfers*—A question has been raised whether the same detailed procedure is necessary in the case of a transfer which is intended to last not over three months, as is requisite in the case of a permanent transfer of charge. It has to be borne in mind that such temporary transfers not infrequently become permanent, and therefore the same procedure appears necessary to be followed.

403 *What is necessary*—The Committee considers that forms Nos A and B referred to in paragraphs 112 and 113 of the chapter quoted above, together with the memorandum prescribed in paragraphs 121 and 122, should be sufficient in cases of permanent transfer, and that, except in cases of sickness, it is unsafe to allow any other procedure in cases of temporary transfer

404 *Transfer form B*—No useful result follows from requiring the balances in the hands of sub-divisional officers to be made up to date of transfer, and it should be sufficient to refer to the latest balance returns prepared, and to record that it had been ascertained that the stock returns were prepared up to date. No lists of records, stock or tools and plant, should be made except of those in the personal charge of the relieved officer and by him made over to his successor personally

405 *Salary to two officers*—The occasional necessity of allowing full salary to the relieving and relieved officers in the same division, while the transfer is in course of execution, should be recognised, it being left to the superintending engineer to check any unnecessary delay

406 *Record of divisional transfers*—Transfer papers of divisional officers should be finally recorded in the superintending engineer's office

407 *Transfers of sub-divisions, para 128*—The orders on this subject appear satisfactory. The transfer papers should be recorded in the divisional office

408 *Register of incumbents of charges*—The keeping up of a register of officers in charge of divisions and sub-divisions showing the periods of incumbency, was suggested by an officer of much experience. It would often facilitate inquiries into transactions of remote date

## Subject No X XII

### *Stock-taking*

409 The present forms indicate that stock should be taken at or about one date, of all articles in the division, including those of the tools and plant class. A column "As actually counted" is to be found in the half-yearly register, form No 42A

410 *Period and method*—This course is not always feasible, and the latitude allowed by the Code (*vide* para 94, chapter X, volume I) should be recognised on the forms. The Committee thinks that stock-taking should be made at any time during the year that may be convenient, provided that each article is counted or weighed once within each twelve months, and that the adjustment of discrepancies should be effected at once on their discovery. A discrepancy should be recorded as an issue or a receipt as soon as discovered, the administrative action to be taken being kept distinct from the question of account-record. The value of such deficiencies (or excesses)

could be kept in a suspense account until the proper authorities passed orders for their adjustment

411 The Committee has suggested (in para 181 under subject No IV) that each sub-divisional officer and store-keeper in charge of stock shall submit an annual balance return of articles in his custody. The executive engineer should verify this by the balances on his office balance return and see that stock has been taken within the year.

### Subject No. XXIII.

#### *Centralising of the accounts work of executive divisions*

412 *Points of enquiry* — Opinions were invited upon the question whether, in consequence of the communication being rapid, the works concentrated, or the existence of other circumstances favorable to the idea, it might not be feasible to amalgamate the accounts of several executive engineers, and place the compilation of them under—

- (a) the superintending engineer,
- (b) a senior executive engineer, or
- (c) a senior accountant or deputy examiner

413 The question of compilation in the examiner's office was also discussed

414 *Opinions adverse* — The officers consulted are generally strongly adverse to centralising in the sense of (a) and (b) above

415 *Centralisation under superintending engineer* — The objections to the idea of centralisation under the superintending engineer are that the work is non-professional, and if attached to the superintending engineer's office must result either in taking up much of the time of that officer which might be more profitably given to professional work, or in the work being left to be badly supervised

416 *Under senior executive* — The arrangement of bringing the accounts of several independent executive officers into the office of one of them has been tried and found to lead to much correspondence and friction

417 *Circle accounts offices* — The Committee thinks that a system of circle accounts offices, under senior accountants or deputy examiners, would be needlessly expensive and less efficient than the present system

418 *Compilation by examiner*. — The Committee thinks that in some cases, especially where there is no stock and little daily labor, and provided the executive engineer keeps his works ledger, the plan of sending his cash-book with vouchers to the examiner, for compilation in his office, might be tried, but that as a rule it is necessary for the control of his works that an executive engineer should compile his own accounts, and that with the assistance of a trained accountant given to him he is in a better position than he would be if he were relieved of the duty of compilation in the sense here indicated and of the services of a trained accountant

419 The executive engineer must have his register of works or works ledger, and it is nearly as easy to keep one abstract book and submit a classified abstract as to make a copy of his cash-book. Besides, persons compiling accounts at a distance are apt to make great mistakes, and the rectification of these gives rise to correspondence and worry

### Subject No. XXIIIA.

#### *Payments by examiner.*

419 *Payments of head office establishments, &c* — The Committee recommends that at the head-quarters of every local government and administration where there is an examiner stationed, that officer should be entrusted with all payments to head-quarters establishments and for miscellaneous purposes, the acceptance of all transfers from outside the province, and the adjustment generally of every item which does not affect the outlay on any work in progress in a division, including all transfers between funds. This would relieve the executive engineer of the head-quarters division of much non-professional work and other engineers of some

The part of the examiner's office concerned with payments should be kept quite separate from the rest of the office, especially the audit portion

420 *Relief of executive engineers of all payments*—The question whether there are not circumstances in which the executive engineer might be relieved entirely of payments, and the duties of disbursement as well as of compilation taken over by the examiner, under some such arrangement as is followed on open lines of State railway, was discussed

421 The Committee does not see its way to make any suggestions of practical reform in this direction. If an executive engineer's works were all concentrated at the station at which the examiner had his head-quarters it would be possible to introduce this system. The executive engineer would merely certify bills for claims, and the payment, accounting and audit, would rest with the examiner

## Subject No. XXIV.

### *Records of establishment matters.*

422 The form of service book is held to be open to objection. The annual detailed statement (form No 112, late 94A) prescribed in Code I, 1,57A, involves a good deal of labor

423 *Service book*—The first column of the second part of the service book might be made to show the office or division in which a man is serving, and not merely his rank. Much trouble is known to have resulted in tracing a man's history from this information not being given. The column might perhaps be a double one, giving (a) rank or grade, (b) office or division in which serving.

424 A form of service book which was brought to the notice of the Committee is attached as appendix Z

425 *Annual statement*—The Committee is unable to recommend the abolition or retention of the annual statement in form No 112, as this question depends on what is necessary for the examiner's office, but if possible this elaborate return should be dispensed with

## Subject No. XXV

### *Returns required of executive engineers by others than the examiner*

426 A list of the returns required of executive engineers in the different provinces visited, exclusive of returns to the examiner, has been drawn up from the best information the Committee could obtain. It is given as appendix Aa. The Committee would invite special attention to this. It seems that in many cases particulars are called for that can be of very little, if any, use to any one, and, if so, the labor bestowed on the compilation of returns that are not required might be saved. The Committee recommends that the usefulness of each return, and the necessity for it, be scrutinised in the office to which it is sent, and that all returns which can be done without be discontinued, and that all which are unnecessarily complex be simplified

427 *Plantation and navigation reports*.—Some officers of the Irrigation Branch have pointed out the very great labor which is now involved in the preparation of the annual reports on canal plantations and navigation operations, owing to their elaborateness. Buildings and Roads officers also complain of the number and extent of returns to the Forest Department

428 *Currency of new returns*—The Committee is inclined to think that every new return established should be given a currency of a fixed number of years, so that at the end of this period the question of the necessity of its continuance should be forced to come up for discussion

429 *Calls from other departments*—Calls from other departments for information which has to be got together by executive engineers should, when first made, be jealously scrutinised. As an instance of how extra work is thrown upon executive engineers by the demands of officers of other departments, it may be mentioned that executive engineers are sometimes required to prepare abstracts of estimates in triplicate, when it is evident the object of the third copy is to save clerical labor in the office of the sanctioning authority.



430 *Administrative progress reports*—The necessity for these returns in some shape is generally admitted, but in certain provinces they have been so elaborated as to become equivalent practically to the schedules of expenditure required of executive engineers under the present orders. The labor involved in their compilation and in copying them is in all cases considerable, and in some provinces it is a heavy burden.

431 If the suggestion which the Committee has made in paras 314, 315 and 318 above, that works slips should be sent forward to the controlling officers, be adopted, superintending engineers will have complete and current information with regard to all important works under their control.

432 The Committee does not venture to make any recommendation as to the shape of these returns or the information which should be given in them, but thinks the authorities who require them might be invited to consider the point and to curtail or simplify them as may be possible.

### Subject No. XXVI

#### *Powers of divisional and sub-divisional officers*

433 The Committee thinks that it should be within the discretion of local governments and administrations to confer increased powers, as below, upon selected officers in charge of executive divisions—

- (a) To sanction requisitions and petty estimates up to a limit of Rs 500
- (b) To write off losses of stock up to a limit of Rs 500
- (c) To purchase English stores in India for sanctioned works up to a limit of Rs 1,000 for each work
- (d) To purchase from a government workshop materials or manufactures to any extent for which there is provision in a sanctioned estimate and an appropriation for the year
- (e) To accept contracts for sanctioned works up to a limit of Rs. 5,000, the limit of report to the superintending engineer being raised to Rs 2,000
- (f) To adjust the balances of manufacture accounts, if the rates of out-turn be not increased by more than 10 per cent over the estimate or the current stock rates. It has to be remembered that articles are manufactured solely for the works and that the works must consequently bear the whole cost of the manufactures. The outlay is passed through suspense, merely that the executive officers may watch the economy of their manufactures.

### Subject No. XXVII.

#### *Travelling audit, and audit at other periods than at end of month*

434 *Present principles and practice*—The present system of accounts is based on the principle that executive engineers shall receive from the examiner, after audit of their accounts, a monthly clearance for the whole of their outlay (*vide* Code I, XII, 1). Formerly this principle was not recognised and large inefficient balances were thrown up, much to the discomfort of officers and to the inconvenience of government. The outlay upon works, establishment and other services is examined in the central accounts office at the same time and by the same persons who book the transactions and clear the accounts with other departments. The monthly audit is supplemented by annual inspections of the divisional offices by the examiner, at which he not only inquires whether the various books, &c., are properly kept, but proves the accord of the initial record in measurement books, stock returns, &c., with the paid bills and compilations like the day book and register of works (*vide* Code I, III, 135 *et infra*). At these inspections the examiner audits a selected proportion of the muster rolls, and vouchers for payments under Rs 5 each, which do not go to his office with the monthly accounts. This examination of a part of the initial records and a part of the vouchers held back is called a test audit.

435 *Travelling audit* —A number of officers think that much good would result from the replacement of this system of a monthly audit and acquittance, supplemented by inspection and test audit, by a system of travelling audit which might deal with the accounts monthly or at longer intervals. The idea prevailing is that by such a system a considerable reduction might be made in the number of returns required by the present procedure, and the necessity for the submission of vouchers to the examiner might be obviated and mitating correspondence stopped.

436 *Duties of travelling auditors* —Nothing very definite has been suggested as to what the travelling auditors should do. It is, however, admitted on all hands that they could not be entrusted with the passing of salaries, the audit of travelling allowances or the disposal of other establishment questions. These form the most difficult part of the audit. It follows then that they would merely audit the outlay on works.

437 *Effect of Committee's proposals* —Now, if the bulk of the divisional accounts be reduced in the manner recommended by the Committee, and if the examiner's audit of works outlay be limited to a comparison with estimate, appropriation, and vouchers, and an examination of the vouchers, the work these travelling auditors could perform locally could be done in the examiner's office by men who were not only general adepts but experts at their special work. The cost would be small in comparison to the deputation of these men to the local offices under the guidance of a gazetted officer. It will readily be understood that men working in a central office can audit a fixed number of vouchers or schedules in much less time than it would take them to visit the different offices and audit them locally. The time and cost of travelling is saved.

438 The Committee hopes that one result of their recommendations will be that the bulk of the correspondence connected with audit of divisional accounts will be greatly reduced.

439 *Objections* —The objections which the Committee sees to any system of travelling audit which has yet come under its notice are—

*Firstly* —Its expense

*Secondly* —Its tendency to inefficiency owing to the necessary inexperience and deficient judgment of the men employed

*Thirdly* —The danger of its becoming a burden to executive engineers and their office establishments from the frequency and lengths of the visits, and difficulties about accommodation

440 *No decided opinion on the general principle* —The Committee is not prepared to pronounce a decided opinion on the general merits of the principle of travelling, as opposed to central, audit. It hopes that the experiment now being carried out in Bombay will be allowed to continue until trustworthy deductions as to the efficiency and economy of the measure can be made from it.

441 *Monthly audit and acquittance* —The Committee does not recommend any departure from the principle of a monthly acquittance to the executive engineers from the examiner. It might be very inconvenient to an officer to be called up on months after date for explanation of circumstances which at the time might be easily elucidated and settled. While it is a duty inseparable from the circumstances of being entrusted with the spending of funds on behalf of the State, that the disbursing officer shall render a properly vouched account of his transactions, showing that the objects on which he has spent the money were authorised, it is also necessary in the interests of good administration that this account should be promptly, effectually and finally dealt with. The examiner's inspections, with the small exception of the muster roll, will not amount to a taking up of old transactions for explanation, but to a scrutiny, in the executive engineer's interests, of the correct keeping of his books, and the proving of his current balances, &c.

442 *Future possibilities* —One of the witnesses who appeared before the Committee has hinted at a time when the duty of government with respect to a great many of the public works of the country, may be altered from that of execution to supervision. It may then be advisable to have travelling auditors

to look after the regularity of the outlay, as it may be to have supervising engineers to see that the works are properly constructed and efficiently maintained, but this is not a practical question at present

443 *Experiment in Bombay* —The experimental system of travelling audit had been in force in Bombay for about a year prior to the Committee's visit to that presidency, and the Committee had an opportunity of hearing what the executive engineers and the accountants who had experience of the system had to say of it. Their evidence is recorded in appendix Bb. The testimony of the executive engineers amounts to this, that they had been relieved of ~~an~~ burden that had been grievous to them, but it does not throw <sup>any</sup> light on the question of the efficiency of the audit and the real merits of the change. It does not touch the question whether the previous burden had not been wrongly inflicted under the present system, or whether its removal could not be effected at less cost and with more resulting efficiency than by travelling audit. It is in itself good that a burden was removed, but it is necessary to look at the question also from the point of view of good administration. The evidence of the executive engineers goes no further than their own convenience was affected.

## Subject No. XXVIII

### *Miscellaneous subjects*

#### *Cheques*

444 In some provinces it seems to be thought necessary that the disbursing officer should write out the cheques with his own hand. This is generally a waste of valuable time, and, moreover, it gratuitously introduces an element of danger of mistake. What is essential is that the disbursing officer should keep the cheque books in his own custody, and that he should formally authorise the payment of all bills. The accountant may well be entrusted with the writing up of the cheques, and this may, if it be thought necessary for safety, be done in the disbursing officer's presence. The disbursing officer is thus left free to examine the correctness of the cheques with the bills before he signs the former.

445 The Committee thinks that the drawer should be permitted to make all cheques payable to order, and that in such cases the treasury officers as bankers should be held responsible for the identification of the payee.

#### *Requisition*

446 The forms of requisition now prescribed are Nos 8A and 8B, and the rules regarding them will be found in Code vol I, chap XII, para 101, and vol II, chap XVI, paras 27 and 29 to 35.

447 The form now called requisition in the Irrigation Branch is misnamed. A requisition is a paper on which some officer, for whom the Public Works Department performs a service, asks that work may be done for him. The requisition of the Irrigation Branch is a petty works' estimate. For this no special form seems required.

448 The ordinary requisition is so framed as to include estimate, account and completion certificate on one sheet. No entry in the works' ledger would be required in such cases.

449 It is usual in some divisions at least, of the Military Works Department, to group a number of requisitions for convenience of payment on form No 15. There seems no objection to this, the contract form B being used in future, but in cases where it suits, the receipt of the payee might be taken on the form of requisition or petty works' estimate itself (*vide* para 74).

\* 450 Reference to barrack damages might be omitted from the back of the requisition in form 8 B as there is full detail inside.

451 The note regarding joint-inspection at head of form No 8A is unnecessary.

452 There appears no necessity of sending to the examiner any vouchers of outlay upon a requisition until the job is completed, but a monthly classified

list as now (*vide* form No 34) will be required, so as to ensure the details of the unaudited balance being brought to the notice of the executive engineer. The examiner would suspend audit of outlay appearing in the accounts on uncompleted requisitions.

453 When the executive engineer has no remarks to make he need not sign on the back of 8A.

#### *Nil form*

451 The Committee recommends the institution of a *nil* form, to be used when any of the regular forms would otherwise have to be submitted blank.

#### *Forms for subordinates*

455 The Committee recommends that printed forms should be supplied for the use of all subordinates however low their grade. At present many lower subordinates have to prepare their returns and accounts in manuscript.

#### *Use of printing*

456 With reference to Code vol I, VI, 11, the Committee recommends that the use of printing should be encouraged. It saves clerical labor and promotes regularity of all kinds. The forms of all ordinary returns and books should be printed, and, as far as possible, returns like the classified abstract, and works slips.

#### *Office accommodation*

457 When a station is certain to remain the head-quarters of a division, the executive engineer's office should, if possible, be in a government building, on a standard plan. Much trouble to clerks, and difficulty of proper record-keeping, is caused by frequent shifting of offices in a station.

#### *Normal cost*

458 Very few officers have now anything to say in favor of the normal cost system, a few of the Bombay officers consider it useful. The Committee's recommendations regarding record of outlay by sub-heads will be found in para 238 above.

#### *Rents*

459 With reference to the orders in Code II, XVI, para 147, as revised by standing order No CXI of 10th August 1885, it was represented to the Committee that much labor is imposed upon executive engineers, especially on officers of the Military Works Department, in connection with the recovery of rents from military officers serving with regiments, occupying government quarters. Executive engineers find difficulty in ascertaining the dates of entry into and vacation of quarters, and frequently this duty involves writing to officers who have left the station. The Committee thinks the duties connected with recovery of rents can be more easily and effectively performed by the military superiors of the occupying officers, and that the executive engineer should be relieved of all concern with quarters for military officers serving with regiments, except for their proper maintenance and perhaps their custody if unoccupied.

#### *Forms in counterfoil books*

460 The following forms of those recommended by the Committee (*vide* para 473), might be printed in counterfoil and bound up in books of convenient size, and machine numbered. The book need not provide for a copy, but merely for a note of the leading particulars.

Daily report	No 4A
Ten-day report	" 4B
Hand receipt	" 6
Imprest cash book	" 7 (The counterfoil to be a complete copy as now)
Materials at site account	" 10 A
Road metal return	" 11
Application for letters of credit	" 31
Advice of transfer	" 37
Acceptance of transfer	" 38
Indent on another department	" 44
Invoice of stores	" 45
Receipt for payments to government	" 48

### *Works establishment*


461 The question of the control over establishment charged to works was brought forward by several officers. The present orders will be found in Code I, VII, 19 and IX, 14 to 16.

462 In some provinces a special provision is made in the estimates, calculated at a small percentage on the other outlay, for works establishment, and in others the cost of the works establishment is covered by the rates of the sub-heads. The Committee prefers the first of these two methods, and thinks the sanction of the superintending engineer should be necessary for the employment on the works establishment of any man whose wages are in excess of one rupee a day. With this modification the Committee thinks the present orders suitable.

### *Receipts for payments to government*

463 The Committee recommends that there should be an entirely separate form established for this purpose (*vide* specimen below), and that the working forms should be bound in books with counterfoils like cheques, and be machine numbered. Such documents are likely to be frequently made the basis of claims on government for repayment, and great care should be taken in the issue of such receipts. As a rule no one under the grade of sub-divisional officer in charge of a territorial sub-division with a drawing account, or zilladar, in the Irrigation Branch, should be allowed to issue receipts on behalf of government.

### *Receipt for money paid to government*

No. _____  Received from ( <i>Ram Bux Contractor</i> ) the sum of Rs (200) ( <i>Security deposit for contract on Nola bridge</i> )		No. _____  _____ Division  _____ 188____  Received from _____  the sum of Rupees _____  as _____
Executive Engineer	Cashier or accountant	Executive Engineer

### *Bi-lingual forms*

464 The present rules under which payment vouchers (*vide* Code I, XII, 156), and cheques in certain cases (*vide* Code I, X, 21) are now printed bi-lingually) should, the Committee thinks, be continued.

### *English stores*

465 Much labor is involved by the rules regarding English stores. They are complicated. There is a general opinion that if the limit for purchase in India of articles of English manufacture were to be raised from Rs 50 to Rs 1,000, great relief would result. The Committee has made a recommendation to this effect under subject No XXVI in para 433 (c) above.

466 *Schedules of rates*—The general opinion in the Buildings and Roads Branch is that these schedules when carefully kept up are useful. A contrary opinion is held in the Irrigation Branch. This discrepancy is due to the different conditions of work in the two branches.

### *Materials from old buildings, &c*

467 The present order (*vide* Code I, X, 91) on this subject is vague, and does not recognise the various alternative procedures which actually prevail.

468 Such materials are either (1) brought on the stock returns, with or without value, (2) sold at once, or (3) transferred to some work in progress without being passed through stock.

469 In case (2) the proceeds are either credited to revenue, or to any addition or alteration in progress on the building from which the materials were removed, a deduction on this account being made in the latter case in the abstract of estimate. A similar credit is made when the materials are brought on stock with value.

470 All these alternatives should be recognised and the use of any one of them, most suitable to each case, be permitted.

*Payment of cheques through subordinates*

471 The Committee thinks that the order in para 84 of chap XII, vol I of the Code, should be so far modified as to permit of the occasional payment of cheques through any subordinate, at the discretion and on the responsibility of the disburser. The opinion of the Department is strongly in favor of this view.

**Subject No XXIX**

*Summary.*

472 The effect of the Committee's recommendations on the forms now prescribed in the Code is exhibited in the subjoined tabular statement.

PRESENT FORMS		ACTION SUGGESTED					Title of modified or new form suggested	Reference to report	
Number	Title	Preserve intact	Abolish	Modify	New form				
					In substitution of an existing one	Entirely new			
	<i>Accounts of disbursers</i>							<i>Paras</i>	
1	Sub divisional cash balance statement		1				{ Muster roll { Allocation sheet Casual labor roll	153	
2	Nominal muster roll			1				73, 75, 106 to 120	
	Casual labor roll					1		110, 145 and 241	
3	Imprest cash book			1				120 and 121	
4	Divisional (& sub divisional) cash book			1				135 to 145	
5	Daily report			1				146 to 151	
6A	Daily (or ten-day) report			1			}	106 to 129	
6	Measurement book			1				43 to 61	
7A	Day book for large works carried out by daily labor, to be detailed by sub heads		1		}		Works ledger, or works abstract		
7B	Day book for works done by daily labor generally, but partly by contract		1			1			214 to 241
7C	Day book for works done partly by contract, partly by petty contract, and partly by daily labor		1						
7D	Day book for task work		1						
8A	Requisition and account for petty works, civil buildings and irrigation			1			}		
8B	Requisition and account for petty works, military works			1				446 to 453	
9	Account of daily receipts and issues of stock				1		Stock ledger	175	

PRESENT FORMS		ACTION SUGGESTED					Title of modified or new form suggested	Reference to report.
Number	Title	Keep intact	Abolish	Modify	New form			
					In substitution of an existing one	Entirely new		
	<i>Accounts of disbursers—contd</i>							
10	Abstract of stock materials received during the month		1		1		Stock return	176
11	Abstract of stock materials issued during the month		1					
12	Statement of receipts issued and balance of stock during the month		1					
13	Half yearly balance return of stock				1		Balance return	181
"	Half yearly balance return of tools and plant				1		Ditto	181 and 325 to 331
	Contractors book					1	Contractors book	62 to 63
14	Contract (and final contract) certificate			1			Contract certificate or bill, form A	73 to 87 and 90 to 94
15	Petty contractors bill				1		Ditto ditto form B	
16	Miscellaneous voucher			1			Hand receipt	89-90
17A	Bill for materials		1					73 76, 80 and 82
17B	List of purchases for which bills in the authorised form have not been received		1					
18	Account of petty contractors		1					71 to 73
19	Statement of road metal supplied		1					332 and 333
	<i>Accounts of executive engineer's office</i>							
20A	Divisional cash balance statement			1				153, 168
20B	Treasury balance certificate	1						159
20C	Do remittance book	1						167
20D	Consolidated treasury receipt			1				161
21A	Bill for salaries			1				310 to 356
21B	Monthly report of non gazetted officers on leave		1					315
21C	Statement of income tax		1					315
22A	Journal of the occupation and duties of officers			1			Travelling allowance bill, form A	310 to 350
22B	Bill for travelling allowances			1			Ditto ditto, form B	310 to 356
23	Acquittance roll		1					310 to 356
24	Contingent bill			1			List of contingent charges	354 and 355
25	Adjustment book	1						218
26	Cash abstract book				1		Abstract book	250 to 257
27	Cash account current		1					253 and 254
28	Stock abstract book		1					250 to 257
29	Stock account current		1					253 and 254
30A	Register of works		1					218 232 and 261
30B	Register of manufactures		1					235 and 239
30C	Sub register		1					260

PRESENT FORMS		ACTION SUGGESTED					Title of modified or new form suggested	Reference to report
Number	Title	Retain intact.	Abolish	Modify	New form			
					In substitution of an existing one	Entirely new		
	<i>Monthly accounts, &amp;c</i>	2	1	1	1	2		<i>Paras</i>
31A.	List of monthly accounts and vouchers		1					274 and 281
31B	Certificate of examination of accounts		1					282
32A.	Schedule of credits to Civil Department—Items adjustable by Civil Department		1		1		Classified abstract of receipts and charges (in convenient parts)	254, 273 to 297
32B	Schedule of credits to Civil Department—Items adjustable by Public Works Department		1					
32C	Schedule of credits to Central adjusting account		1					
32D	Schedule of credits to Telegraph Department		1					
32E	Schedule of credits to transfers of the Public Works Department		1					
32E 1	Schedule of credits to Guaranteed Railways		1					
32 F	Schedule of credits to Expenditure in England London account—Stores		1					
32F 1	Schedule of credits to London account—Miscellaneous		1					
32G H.I	Register of revenue realized, Buildings and Roads branch	1					} 258 and 284	
"	Register of revenue realized, Irrigation branch	1						
32J	Schedule of debits to Civil Department—Items adjustable by Civil Department		1					254, 273 to 297
32K.	Schedule of debits to Civil Department—Items adjustable by Public Works Department		1					
32L	Schedule of debits to Central adjusting account		1					
32M	Schedule of debits to Telegraph Department		1					
32N	Schedule of debits to transfers of the Public Works Department		1					254, 273 to 297
32N 1	Schedule of debits to Guaranteed Railways		1					
32O	Schedules of expenditure against each separate budget grant		1					
32P	Schedule of stock purchases and sales		1			1	{ Register of suspense accounts and annual lists of outstandings in each account.	271, 286 to 288
32Q	Schedule of debits to stock		1					277
32R	Schedule of miscellaneous advances		1					
32S.	Schedule of London invoices		1					
32T	Schedule of London stores		1					
32U	Schedule of deposits		1			1	(As above)	
32V	Schedule of tucavee advances		1					
32W	Schedule of barrack supplies		1					

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PRESENT FORMS		ACTION SUGGESTED						Title of modified or new form suggested.	References to report.
Number	Title	Retain intact	Abolish	Modify	New form				
					In substitution of an existing one	Entirely new			
	<i>Monthly accounts, &amp;c—contd</i>			1	1	4			<i>Puras</i>
32\	Schedule of famine relief works	1							290
32\ 1	Schedule of credits and debits to civil engineers' provident fund		1						291
32\ 1	Return of public buildings rented and available for rent			1			Rent roll		272, 292 and 400
33A	Work voucher		1				}		
33A 1	Work voucher for repairs—Head works		1						
33A 2	Work voucher for repairs—Main canal and branches		1						
33A 3	Work voucher for repairs—Distributaries		1						
33A 4	Work voucher for repairs—Drainage and protective works		1						293
33B	Work voucher for manufacture		1						
33C	Schedule of establishment charges		1						
33C 1	Schedule of establishment charges (chief and superintending engineers)		1						
33C 2	Schedule of establishment charges (examines)		1						
34	List of petty works executed on requisitions	1							294 and 452
35	Account sale	1							
36	Contractors ledger		1				}		263 and 264
36	Extract from contractors ledger		1						
37	Statement of refunds			1			Statement of "Writes back"		295
38	Statement of deviations from sanctioned specifications and dimensions of works		1						296
39	Divisional statement of objectionable items in the accounts		1						297, and 319 to 325
40A	Indent for, and invoice and acknowledgment of, supplies received from other departments	1							
40B	Invoice of stores	1							
41A	Advice of transfer debit	1							
41B	Acceptance of transfer or advice of credit	1							
41C	Register of sanctioned estimates and budget grant					1 1	Register of estimates Register of appropriations	}	261 and 262
41D	Application for letters of credit			1					
41E	Totals of cash abstract book					1	Approximate account		299 300 303 and 306
41F	Register of liabilities incurred, but not liquidated	1					}		272, 307 and 308
41F	Extract from liabilities incurred, but not liquidated			1					



Number in series	Title of form	Reference to report.
		<i>Paras</i>
3B	Casual labor roll	120 and 121
4A	Daily report	} 110, 122 and 123
4B	Ten-day report	
5A	Contract certificate or bill in form A	} 73 to 87 and 90 to 94
5B	Ditto ditto B	
6	Hand receipt	73, 88, 89
7	Imprest cash book	135 to 145
8	Cash book	146 to 151
9	Stock ledger	175
10	Monthly stock return	176
10A	Materials at site account	202
11	Road metal return	332 to 339
12	Sub divisional annual balance return of stock, or tools and plant	181 and 326 to 331
13	Adjustment book	218
14	Works ledger, or works abstract	214 to 241
15	Abstract book	253 to 256
16A	Register of revenue, Buildings and Roads Branch	} 258 to 284
16B	Register of revenue, Irrigation Branch	
17	Suspense register	271, 286 to 288
18	Monthly classified abstract	251, 273 to 297
19	List of petty works	294 and 452
20	List of contingent charges	354 and 355
21	Divisional annual balance return of stock, tools and plant, or road metal	186 to 188
22	Return of instruments	331
23	Register of liabilities	272, 307 and 308
24	Road metal into book	339
25	Register of estimates	} 261 and 262
26	Register of appropriations	
27	Register of buildings	272
28	Annual list of outstandings in each suspense account	286 to 288
29	Rent roll	272, 292 and 459
30	Approximate account	299, 300, 303 and 306
31	Application for letters of credit	298 to 309
32	Salary bill	340 to 350
33	Travelling allowance bill	340 to 356

Number in series	Title of form	Reference to report
		<i>Paras</i>
34	Completion report	} 387 to 392
35	Completion certificate	
36	Statement of writes-back	295
37	Advice of transfer	...
38	Acceptance of transfer	
39A	Requisition	} 416 to 453
39B	Ditto Military	
40	Memorandum of treasury balances	153, 158
41	Treasury balance certificate	159
42	Remittance book	167
43	Consolidated receipt	161
44	Receipt for payments to government	1-1
45	Account sales	463
46	Indent on another department	
47	Invoice of stores	
48	Application for re-appropriation	..
49	Survey report of stores	
50	List of officers (civil or military) who occupied public buildings	459

## PART V

## MATTERS RELATING TO INDIVIDUAL PROVINCES

*Punjab*

474 *Civil officers' accounts*—There is much labor, apparently unnecessary, thrown on the Department owing to the examiner not dealing with civil officers direct, but passing their transactions through the accounts of executive engineers of the Buildings and Roads Branch

475 *Irrigation Branch*—In the Irrigation Branch the superintending engineer requires—

- (1) A monthly return of sanctions by executive engineer on requisition (It takes one day to prepare this)
- (2) A monthly statement of appropriations and expenditure in detail by works (It takes another day to compile this)
- (3) A monthly statement of additions to budget grants or transfers therefrom (This takes half a day to compile)

No 1 appears necessary, but the object of requiring Nos 2 and 3 is not apparent

*North-Western Provinces and Oudh*

476. *Cutting wood on canals*—There is a difficulty on these canals in temporarily meeting outlay in cutting timber and firewood and bringing it to market There ought to be a suspense account under revenue expenditure for this, such as a manufacturer uses for goods manufactured for sale It is stated that this work must, as a rule, be done departmentally

477 *Buildings and Roads accounts* — One district engineer credits deposits with balances held back from contractors. This he does to avoid using form No 18, which evidently he does not look upon as an instrument of payment. Balances due to contractors, unless of the nature of deposits as security, should not be charged to heads of service, but merely held on the record in the works accounts. There should be no credit to deposits.

478 The same officer represented that he had great trouble with civil officers who held imprests from him.

479 The province is divided into circles, divisions, and districts, in charge of superintending, executive, and district engineers respectively.

480 District engineers may be of the grades of executive engineer, assistant engineer or upper subordinate.

481 At present the 51 district engineers submit to the examiner thrice a month, copies of their cash-books with vouchers. The examiner compiles from these ten sets of divisional accounts, and audits and books the latter.

482 The present system deprives the district engineers of the accounts necessary to manage their works, or it involves their keeping accounts outside of the regular chain. The divisional and superintending engineers are absolutely out of touch with the expenditure. The divisional accounts compiled by the examiner are openly declared to be of no use to any person. The cost of dealing with the accounts under this system is understood to be excessive.

483 The Committee thinks it would be advisable to allow district engineers to compile their own accounts, and to limit the examiner's duty to booking and auditing them.

484 The district engineers keep no stock, and they employ scarcely any daily labor. The accounts they would have to keep and submit to the examiner would be of the simplest nature possible. They would keep the same books and submit the same returns to the examiner, as are suggested elsewhere in this report for executive engineers, except those relating to stock.

485 The Committee suggests that the district engineer should be required to send the divisional engineer a works slip (*vide* appendix Y), and that these should, when required, be passed on, in original or by copy, to the superintending engineer.

486 The district engineers, under this arrangement, would have accounts which they could use to control their works. Their works ledger, and their abstract book, would be posted day by day, and their accounts could be ready for despatch within two or three days of the end of the month.

487 The divisional engineers would get by the 10th of each month at latest, the works slip, letting them see how the outlay on each work was proceeding against the estimate, and the superintending engineer could get like information a day or two later.

488 The controlling officers (divisional and superintending engineers) would thus have accounts which they could, and which divisional engineers no doubt should, look over when they visit the district engineers' head-quarters. The procedure suggested allows of this being done, which the present system does not. A divisional or superintending engineer can see from the works slip, which he can easily carry about in his pocket and take upon his works, how outlay is progressing. He can then go into the office and get full details by means of the works ledger.

489 It would be an advantage to confer certain powers with regard to works, contracts, and establishment, upon district engineers. They have none at present.

490 A question was raised in this province as to the official who should sign a contract certificate over the words "In charge of the work." The case was that of a work under the direct supervision of a sub-overseer, but which was regularly inspected and controlled by the sub-divisional officer. The Committee thinks that the sub-divisional officer should be the person to sign as in charge of the work, and that there are good reasons for not allowing the sub-overseer to sign as in charge (*vide* para 84).

### *Military Works*

491 Much labor is involved by the distribution of the outlay on petty military works by heads of service. It is a question whether this is of any real use to Government.

492 It is the custom to compile pay sheets from muster rolls. This seems unnecessary.

### *Bombay*

493 In Bombay the division is called district. The term "sub-divisional officer" means generally an upper or lower subordinate.

494 It was suggested that estimates for works chargeable to local funds, might be sanctioned by district (divisional) engineers up to, say, Rs 1,000 each. This view the Committee concurs in.

495 In Bombay, before 1881, daily reports showing the number and value of laborers employed, and the money value of their labor, quantities and value of stores purchased, and of stock materials used, were sent in to the executive engineer's office, on the following morning. The quantity of work done was usually given at the end of the month only, or at other intervals. These returns were called morning reports and they were collated on a form, called the "figured abstract" for each work by sub-heads. This showed the quantity of each class of work done and the value of labor and materials consumed on it. It was based entirely on liabilities.

## PART VI

### CONCLUDING REMARKS

496 In the recommendations made above the Committee trusts it has kept first in view what is necessary for good administration. It hopes that the result of its labors will be not only an improvement in the administration of the department, but also a great reduction of the labor now imposed upon divisional and sub-divisional officers, and considerable economy.

497 The economy should be not only indirect, owing to the larger amount of time available for outdoor supervision and other professional work, but also direct, in correspondence, and in stationery and forms.

498 Another direction in which the Committee thinks important reductions of expenditure ought to be possible, in consequence of its recommendations, is in the cost of the examiners' offices.

499 It is also hoped that, with the accounts reduced in number and simplified as proposed, executive officers will find them more interesting and less burdensome than at present.

500 In conclusion, the Committee desires to place on record its sense of the great courtesy and cordial assistance which it has received from officers of all branches of the Department in every province.

R G MACDONALD,

*Deputy Accountant General,  
Public Works Department*

} PRESIDENT

E HARVEY, Lieutenant-Colonel, R E,

*Superintending Engineer,  
Public Works Department*

} MEMBERS

R. A. CORDNER, M I C E,

*Offg Superintending Engineer,  
Public Works Department*

SIMLA,

*The 13th July 1889*

## APPENDIX A

No 374 A G , dated Simla, the 22nd October 1888

Resolution by the Government of India, Public Works Department.

**Reduction of account work in offices of executive engineers of the Buildings and Roads and Irrigation Branches of the Public Works Department.**

**RESOLUTION**—The question of the reduction of account work in the offices of executive engineers of the Buildings and Roads and Irrigation Branches of the Public Works Department, has for some time past engaged the attention of the Government of India, and it has been determined to appoint a Committee to make a searching inquiry into the system of accounting for receipts and expenditure, and to report how far the present procedure can be simplified without sacrificing administrative control

2 The Committee will be composed as follows —

**PRESIDENT**

Mr R G Macdonald, Deputy Accountant General, Public Works Department

**MEMBERS \***

Lieutenant-Colonel E Harvey, R E, Executive Engineer, 1st grade, Punjab

Mr R E Cordner, Executive Engineer, 1st grade, North-Western Provinces and Oudh

3 The Committee will assemble as soon as possible, and proceed to sit at Lahore, Allahabad, Bombay, and Calcutta, in succession. The local governments concerned will be invited to nominate an experienced officer of the executive branch to serve as a temporary member of the Committee when it visits each province. In the case of the Punjab an officer should be selected from the Irrigation Branch, and in the case of the North-Western Provinces and Oudh, the selection should be made from the Buildings and Roads Branch

4 The salaries and travelling allowances of the members of the permanent Committee will be charged to the Imperial Civil Works grant. The payments made to these officers while on deputation should be adjusted in transfer with the Examiner, Public Works Accounts, Bengal. The salaries of local members of the Committee will be a charge against the Provinces to which they belong. Salaries and travelling allowances of the permanent members should be drawn under the audit of the officer who now passes their salaries, and the amounts should be transferred by him to the Examiner of Public Works Accounts, Bengal

5 The duties of the Committee will be to thoroughly investigate the procedure laid down in Vols I and II of the Public Works Department Code, and parts I, II A and II B of the book of forms, appertaining to these volumes, so far as it affects the accounts of sub-divisional officers and executive engineers, and to consider what accounts and returns are essentially necessary for purposes of control, account and audit, and what may be dispensed with

The Committee should then discuss how far the accounts, &c, proposed to be retained can be simplified in order to lessen the labor in executive engineers' offices

6 The Committee is empowered to take the evidence of local officers of experience, on subjects which fall within the scope of the Committee's duties, to which end local governments are requested to give facilities to such officers to communicate with, or appear before, the Committee

7 The sittings of the Committee at each place should be publicly notified by the president, and it will be open to any contiguous administration as well as to the province in which the Committee sits, to send evidence or opinions before the Committee

8 The report of the Committee should be submitted to the Government of India within, if possible, four months from the date the sittings commence

**ORDER**—Ordered, that a copy of the foregoing be forwarded to the local governments,

The Governments of Madras, Bombay Bengal, the North Western Provinces and Oudh, and the Punjab

The Chief Commissioners of the Central Provinces, Burma, Assam, and Coorg

The Resident at Hyderabad

The Agents to the Governor General for Central India, Rajputana and Baluchistan

The Accountant General, Public Works Department.

R G Macdonald, Esq

Lieutenant Colonel E Harvey, R E

R A Cordner, Esq, M I C E

administrations, and officers noted

in the margin, for information and

guidance

Ordered also, that copies be forwarded to the Finance and Military Departments for information, and that the resolution be printed in the *Gazette of India*

\* Appointed with the consent of the Governments of the Punjab and North Western Provinces.

No 69 A G , dated Calcutta, the 14th March 1889

From—LIEUTENANT-COLONEL A. G. BEGBIE, R E , Officiating Deputy Secretary to the Government of India, Public Works Department,

To—R G MACDONALD, Esq , President, Public Works Accounts Committee

In reply to your letter of the 22nd instant, I am directed to state that the Public Works Accounts Committee should now proceed to Madras to take the views of officers at or near the Presidency, upon the points under discussion. The Government of Madras has nominated an Executive Engineer to serve as a temporary member on the Committee.

2 I am to add that after the work at Madras has been completed, the Committee should proceed to Simla to draw up the report.

(Appendices C, D, E and F are not reprinted with this report.)



## APPENDIX G.

List of names of witnesses, and of the dates on which papers were issued to and returned by them.

Name	Rank	DATE OF	
		Issue of printed notes	Receipt of replies to notes
Punjab			
Bradley, R	Executive Engineer	23rd November 1888	26th November 1888
Greer, W J	Ditto	Ditto	Ditto
Sohan Lall	Overseer	Ditto	Ditto
Déwan Singh	Sub-Overseer	Ditto	Ditto
Miller, Major J F J, S C	Executive Engineer	24th Ditto	28th Ditto
Mullaly, J J	Ditto	Ditto	Ditto
Luchmee Chand	Sub-Engineer	Ditto	26th Ditto
Nathoo Ram	Sub Overseer	Ditto	Ditto
Purves R E	Assistant Engineer	26th Ditto	29th Ditto
Perkins, Major-General A., C B, R.F	Chief Engineer	27th Ditto	20th May 1889
Home, Lieutenant Colonel F J, R L	Ditto	Ditto	Not received back
Ottley, Major J W, R E	Superintending Engineer	Ditto	22nd February 1889
Hilton, J E	Executive Engineer	Ditto	1st December 1888
Gunga Ram, Rai Bahadur	Ditto	Ditto	3rd Ditto
Lambert, Colonel P, R E	Examiner	Ditto	1st Ditto
Yeats, S K. L	Deputy Examiner	Ditto	Ditto
Creameor, P J	Accountant	Ditto	Ditto
Conlan, H. J	Ditto	Ditto	Ditto
Mullick, Das Ram	Ditto	Ditto	3rd Ditto
Rulla Ram	Ditto	Ditto	Ditto
Ramji Das	Ditto	Ditto	1st Ditto
Miran Bux	Ditto	Ditto	3rd Ditto
Bannerjee, Bama Churn	Supervisor	Ditto	Ditto
Mahomed Jamil	Accountant	28th Ditto	30th November 1888
Maolagan, Lieutenant R. S, R E	Assistant Engineer	30th Ditto	4th December 1888
Ivens, T E	Superintending Engineer	1st December 1888	6th Ditto
Prabh Dayal	Sub-Overseer	Ditto	3rd Ditto
Olver, E E	Superintending Engineer	3rd Ditto	10th Ditto
Molloy, R. A	Executive Engineer	Ditto	6th Ditto
Sibold, E A.	Ditto	Ditto	Ditto
Gouri Ditta	Accountant	Ditto	Ditto
Gobind Ram	Ditto	Ditto	4th Ditto

*List of names of witnesses, and of the dates on which papers were issued to and returned by them—contd*

Name	Rank	DATE OF	
		Issue of printed notes	Receipt of replies to notes
Punjab—contd			
Trkan Ram	Sub Overseer	3rd December 1888	4th December 1888
Kesho Ram	Ditto	Ditto	Ditto
Sohn Lall	Ditto	Ditto	Ditto
Hashim Ali	Ditto	Ditto	Ditto
Gholam Hussein	Supervisor	Ditto	5th Ditto
Garbett, H	Superintending Engineer	Ditto	7th Ditto
Chandu Lall	Accountant	5th Ditto	9th Ditto
Hakimdin	Ditto	Ditto	Ditto
Emam Buksh	Ditto	Ditto	9th Ditto
Macdonald, W	Executive Engineer	Ditto	7th Ditto
Bakshi Ram Singh, <i>Rai Sahib</i>	Ditto	Ditto	6th Ditto
Campion, J M	Ditto	Ditto	8th Ditto
Davis, J G	Assistant Engineer	Ditto	Not received back
Farley, F	Executive Engineer	Ditto	8th December 1888
Kenner, H A S	Superintending Engineer	Ditto	Ditto
Johnson, W H	Executive Engineer	Ditto	Ditto
Abbott, Captain H E S, <i>R.E</i>	Ditto	Ditto	Ditto
Dina Nath	Accountant	10th Ditto	13th Ditto
Benton, J	Executive Engineer	Ditto	19th Ditto
Karm Chand	Accountant	Ditto	13th Ditto
Russell, R P	Assistant Engineer	Ditto	11th Ditto
Ward, T R J	Ditto	Ditto	Ditto
Maunsell, F W	Ditto	Ditto	Ditto
Madho Ram	Accountant	Ditto	13th Ditto
Farrant, J T	Executive Engineer	Ditto	12th Ditto
Rughonundun Lal	Supervisor	Ditto	Ditto
Singh, Jawala	Accountant	12th Ditto	14th Ditto
Wallis, B G	Executive Engineer	8th Ditto	12th Ditto
Bagley, W A	Ditto	11th Ditto	Ditto
North-Western Provinces and Oudh			
Joseph, G J	Executive Engineer	17th December 1888	19th December 1888
Nethersole, M	Assistant Engineer	Ditto	Ditto
Skipwith, Lieut Col G T, <i>R.E</i>	Superintending Engineer	Ditto	20th Ditto
Palmer, C G	Executive Engineer	Ditto	Ditto
Good, W	Ditto	Ditto	19th Ditto

## APPENDIX G.

*Last of names of witnesses, and of the dates on which papers were issued to and returned by them—contd*

Name	Rank	DATE OF	
		Issue of printed notes	Receipt of replies to notes
North-Western Provinces and Oudh—contd			
Steel, Colonel J P, R E	Chief Engineer	22nd December 1888	11th January 1889
Gordon, D C	Examiner	Ditto	26th December 1888
Swetenham, Colonel E, S C	Superintending Engineer	Ditto	9th January 1889
Battie, R C	Executive Engineer	Ditto	5th Ditto
Watson, C*J K	Examiner	Ditto	21st Ditto
Eickie, F W	Deputy Examiner	Ditto	5th Ditto
Cameron, J	Accountant	Ditto	Ditto
Walker, Conductor W E	Ditto	Ditto	Ditto
Chiodatti, G	Ditto	Ditto	5th Ditto
Mookerjee, Trunoo Chunder	Ditto	Ditto	3rd Ditto
Bhattacharjee, Kali Churn	Clerk	Ditto	1th Ditto
Bose, Gopal Chunder	Accountant	Ditto	Ditto
Radha Kishen	Ditto	Ditto	Ditto
Broekman W D	Superintending Engineer	Ditto	5th Ditto
Bird, G R	District Engineer	Ditto	30th December 1888
Forbes, Colonel J G	Chief Engineer	Ditto	Not received back
Beresford, J S	Superintending Engineer	Ditto	13th April 1889
Slater, W A	District Engineer	Ditto	6th January 1889
Perks, Sub-Conductor A	Ditto	Ditto	2nd Ditto
Martin, G W K	Ditto	Ditto	29th December 1888
Bannerjee, D D	Ditto	Ditto	Ditto
Lewis, R M	Ditto	Ditto	2nd January 1889
Mohun Lall	Overseer	Ditto	5th Ditto
Asgar Ali	Sub Overseer	Ditto	3rd Ditto
Nathoo Mull	Ditto	Ditto	2nd Ditto
Chibborn, Captain J, S C	Executive Engineer	21th Ditto	7th Ditto
Nathoo Sing	Sub Overseer	2nd January 1889	3rd Ditto
Heaven, F G	Deputy Examiner	Ditto	7th Ditto
Read, Conductor R	Sub Engineer	Ditto	4th Ditto
Webb, A L	Assistant Engineer	4th Ditto	5th Ditto
Hawkins, R W L	Executive Engineer	Ditto	7th Ditto
Mookerjee, Dharmo Dass	Accountant	Ditto	10th Ditto
Bysack Saroda Pershad	Ditto	Ditto	9th Ditto
Abdas Satar	Supervisor	5th Ditto	8th Ditto
Hill, C	Executive Engineer	7th Ditto	9th Ditto
Mookerjee, Bykoontnath	Accountant	Ditto	10th Ditto

*List of names of witnesses, and of the dates on which papers were issued to and returned by them—concld*

Name	Rank	DATE OF	
		Issue of printed notes	Receipt of replies to notes

<i>North-Western Provinces and Outh—concl'd</i>			
Blandford, J	Sub Engineer	8th January 1889	11th January 1889
Hur Narayan	Sub Overseer	10th Ditto	22nd Ditto
<i>Bombay</i>			
Mahdeo Ram Chunder	Sub-Overseer	14th January 1889	28th January 1889
Osborn, Lieut Col, W, R E	Executive Engineer	15th Ditto	22nd Ditto
Himatlal Dhirazram, Rao Bahadur	Assistant Engineer	Ditto	21st Ditto
Little, T D	Superintending Engineer	16th Ditto	22nd Ditto
Palliser, H G	Executive Engineer	Ditto	Ditto
Johnson, Conductor G H	Sub Engineer	Ditto	25th Ditto
Runchordass Naro'umdass	Overseer	Ditto	31st Ditto
LeBreton, Major W I, S C	Examiner	17th Ditto	18th Ditto
Murzbani, M C, Khan Bahadur	Executive Engineer	18th Ditto	31st Ditto
McDonald, Sergeant I J	Supervisor	21st Ditto	22nd Ditto
Shahgram Jaggonath	Ditto	Ditto	28th Ditto
Whiting, J E	Chief Engineer	Ditto	29th Ditto
Rebels, S	Executive Engineer	Ditto	28th Ditto
Hill, A	Assistant Engineer	Ditto	Ditto
Reinold, E K	Executive Engineer	Ditto	23rd Ditto
Land E	Deputy Examiner	22nd Ditto	24th Ditto
Crisp, W A	Ditto	Ditto	31st Ditto
Succaram Dhondoo	Accountant	24th Ditto	Ditto
Stevenson, W R	Ditto	Ditto	Ditto
Doig, S B	Executive Engineer	25th Ditto	Ditto
Woswoodoo Dinker	Supervisor	Ditto	1st February 1889
Gopal Narain	Accountant	Ditto	Ditto
Hight, A E	Executive Engineer	30th Ditto	Ditto
Rakmajee Narayan	Supervisor	31st Ditto	Ditto
Sadashev Narayan	Accountant	1st February 1889	3rd Ditto
<i>Bengal</i>			
Stephen, K H	Executive Engineer	22nd February 1889	27th February 1889
Odling, C W	Superintending Engineer	Ditto	2nd March 1889
Neuville, E J	Deputy Examiner	Ditto	6th Ditto
Carey, Lieut Col, H R. LeM., S C	Examiner	Ditto	Ditto
Girling, W	Honorary Assistant Engr	Ditto	28th February 1889

## APPENDIX G

*List of names of witnesses, and of the dates on which papers were issued to and returned by them—concl'd*

Name	Rank	DATE OF	
		Issue of printed notes	Receipt of replies to notes
<i>Bengal—contd</i>			
Davies, J D	Executive Engineer	22nd February 1889	7th March 1889
Clöete, H N C	Ditto	Ditto	17th April 1889
Wickes, T H	Superintending Engineer	Ditto	7th March 1889
Neill, Lieut Col, G F E S, S C	Superintendent of Works	Ditto	5th Ditto
Faulkner, G W	Executive Engineer	Ditto	2nd Ditto
Silk A D	Assistant Engineer	Ditto	1st Ditto
Scotland, J P	Executive Engineer	25th ditto	4th Ditto
<i>Madras</i>			
Christie, Major C H P, R E	Examiner	18th March 1889	26th March 1889
Rainier, H	Deputy Examiner	Ditto	23rd Ditto
Whiteley, J J	Executive Engineer	Ditto	25th Ditto
Pears, S D	Ditto	Ditto	26th Ditto
O Connell, H H	Ditto	Ditto	Ditto
Drake Brockman, Lieut Col, R, R E	Chief Engineer	Ditto	Ditto
Burlton, C H B	Executive Engineer	Ditto	29th Ditto
Smith, C A	Ditto	Ditto	26th Ditto
Smart, Major A W, R E	Ditto	Ditto	27th Ditto.
Campbell, Major D McNeil, R E	Superintending Engineer	Ditto	25th Ditto
Walch, G T	Chief Engineer	Ditto	Ditto
Vincent, C	Executive Engineer	Ditto	27th Ditto
Gaynor, M H	Accountant	Ditto	25th Ditto
<i>Sundry officers</i>			
Robertson, F E	Suptg Engr (Railway)	30th November 1888	10th December 1888
Davidson, Captain G, R E	Executive Engr (M W)	22nd December 1888	3rd January 1889
Greenstreet, Major W L, R E	Suptg Engr ( Do )	Ditto	13th April 1889
Digby, Captain T, R E	Executive Engr ( Do )	24th Ditto	8th January 1889
Spratt, Major F T N., R E	Suptg Engineer ( Do )	Ditto	8th February 1889
Sherlock Hubbard, I S	Examiner ( C P )	18th January 1889	4th Ditto
Fox, Major, H C, R E	Executive Engr ( Hyd. )	21st Ditto	25th January 1889
Clarke, Major H, R E	Examiner ( Do )	Ditto	23rd April 1889
Glass, J G H	Suptg Engineer ( C P )	Ditto	9th February 1889
Sparks, Lieut Col, J B, S C	Port Storekeeper (Railway)	24th Ditto	31st January 1889

General suggestions for reform by officers specially consulted, received in reply to the Committee's printed letter dated 15th April 1889.

## BUILDINGS AND ROADS

### PUNJAB

GENERAL Æ PERKINS, C B, R E,  
*Chief Engineer*

Simplification by the obviation of superfluous details in the various returns, &c, and by deferring the audit of divisional accounts until a work is approaching completion or for longer periods. The introduction of revised forms is not a reform in the right direction.

MR H A S FENNER,  
*Superintending Engineer*

Would propose that the executive engineer submits to a central office of accounts only the initial accounts, such as daily reports, muster rolls, all vouchers for payments, receipts and issue of stock, tools and plant and road metal, and that the central office of accounts prepare all accounts therefrom, including day-books, schedules, and work vouchers. When the day-books are completed in examiner's office, they should be sent to executive engineer for him to post up his register of works. Only half-yearly returns of road metal, tools and plant and stock to be submitted to examiner's office by executive engineers, the same with statement of buildings available for rent, outstandings and a few other important forms.

MR E E OLIVER,  
*Superintending Engineer*

1 Decentralization, more especially as regards provincial and local public works accounts, and ultimately a system of peripatetic audit.

2 Extend a much greater share of confidence to the public works officers, now trusted very largely in great items, but worried over insignificant ones, and adopt towards them the method of ordinary business dealings.

3 Adopt to a much greater extent the contract system as against the departmental, which is fast becoming archaic. Apart from the above, I consider about  $\frac{2}{3}$  of the forms now in use are unnecessary, in that they do not help to save Government money, but merely ring the changes on the way it has been spent. (Please see the note attached to my report.)

MR. T E IVENS,  
*Superintending Engineer*

The forms should be simplified as much as possible, and the several schedules and returns which serve no other purpose than supplying the wants of examiners' offices, probably for the supply of information to the Government of India, &c, should be dispensed with.

## APPENDIX H.

MR J E HILTON,  
*Assistant to Chief Engineer*

Simplification as more fully discussed in the answers to the papers given by the Accounts Committee, but principally in postponing audit of divisional accounts to quarterly periods

MR J M CAMPION,  
*Executive Engineer.*

Let examiners take over accounts, whatever they may be, *altogether*. Engineers will prepare bills with attached measurement sheets properly certified, and give them to contractors, who will hand them over on payment to examiner's department. Similarly for labour payments. In fact, as in European countries. I feel certain this could be worked out with benefit to all, and a considerable reduction in cost of establishment. No executive engineer would want more than 2 clerks to run his office for *works*. If the cost of audit was fixed, per cent, on each estimate, examiners would not elaborate forms and returns any more. Engineers would do far more construction, and *quicker*. There would be only one audit instead of two, as at present. If we can't get to this, then the nearer we work to it the better, on the system of European countries and private or commercial undertakings.

MR W H JOHNSON,  
*Executive Engineer*

The forms to be submitted to be reduced in number and simplified

Unnecessary information not to be recorded, such as is contained in the contractors' ledger, which gives an immense amount of work monthly, and is not required except in the cases of large accounts

The natural responsibilities of engineer and accountant to be recognised. The engineer to be only held responsible for the accuracy of all measurements, payments, day-books and cash books, and only required to certify that the accounts and divisional record books have been compiled by the accountant and are "apparently" correct

The accountant to be held entirely responsible for the accuracy of all the returns prepared by him

MR. B G. WALLIS,  
*Executive Engineer*

(a) Keep expenditure by lump sums of estimate up to a limit of Rs 10,000, and give no explanations of excess in rates in the audit notes so long as the estimate is not exceeded

(b) Keep all accounts of every description by the decimal system

(c) Only prepare one copy of contractors bills

(d) Introduce a simpler form of day-book

(e) Ditto application for letter of credit

(f) Increase the powers of a requisition to Rs 500, and let the requisition form be the bill for work done

## APPENDIX H.

(g) No contracts under Rs 1,000 should be reported to the superintending engineer

(h) That executive engineers should have powers to accept contracts up to a limit of Rs 10,000

(j) Vouchers for petty items of expenditure should be largely reduced

(k) Cash payments to be made up to a limit of Rs 20

(l) That all civil officers should apply direct to the examiner for their letters of credit, cheque books, &c, and that all imprest accounts and returns of cheques should be sent direct to that officer

(m) That the contractors ledger and petty contractors accounts and forms 36 and 15 should be discontinued

CAPTAIN H E S ABBOTT, R E,  
*Executive Engineer*

The number of returns submitted to examiner should be reduced greatly. Executive engineers should be relieved of all "compiling" work that does not interest them

So long as an executive engineer keeps within the total of his estimate, he should not be bothered to give explanations as to excesses on the separate items

RAI GUNGA RAM BAHADUR,  
*Executive Engineer.*

In my detailed replies, I had proposed the centralisation scheme, proposing that the cash book and vouchers may be sent to the central office of accounts for compilation of accounts. Since then, however, I have also had a talk with officers who have advocated the decentralisation scheme, thereby meaning to get the audit done by travelling auditors. No doubt this system has also its own advantages. But the present system is neither one nor the other.

RAI BAKSHI RAVI SINGH SAHIN,  
*Executive Engineer*

The number of Code forms should be reduced considerably, and some of them amended, as I pointed out before when I gave evidence at Lahore.

MR I' FARLEY,  
*Executive Engineer*

Simplification of forms generally, especially as regards day-books and the various unnecessary types of bills.

MR W. A. BAGLEY,  
*Executive Engineer*

The most important reform I think desirable is the abolition of audit by subhead. Next to this the simplification of vouchers, of which none should be required for sums under Rs 20. Simplification of day-books and stock returns, and the employment of the simple requisition form for works up to Rs 500.



## APPENDIX H

LIEUTENANT R S MACLAGAN, R E,  
*Assistant Engineer*

Reduction and simplification of returns

## NORTH-WESTERN PROVINCES AND OUDH

COLONEL J P STEEL, R.E.,  
*Chief Engineer*

In my opinion there can be no real reduction in accounts until the system of accounting by "items" of work is either abolished or very materially modified

I use the term items in the sense given in the definition, chapter XII, 15, 16, but the definition has not, I believe, been maintained, and examiners continue to call "items" of work "subheads"

It was intended that for all works under Rs 2,500, the accounts should not be kept by "items" (in code, chapter XIII, 60, the term "subheads" is used by mistake for items), and that the register of works should only show the total charges. This would have given some relief, but I believe it has been treated as a dead letter, and accounts still continue to be kept by "items" in all cases except requisitions

In this direction only, in my opinion, is there any relief to be obtained. I have come to the conclusion that the present elaborate audit of items is in no way conducive to economy, that it produces an enormous amount of friction and correspondence, and that the information thus obtained, except in the case of large works, comes too late to exercise the smallest check on the expenditure while it creates as much work as if it was really of the first importance

We have worried over "items" for years, and if it has been of any use, it can only be to establish the rates for work. This enables us to prepare our estimates more accurately, but then it ceases to be any benefit beyond this. By the experiment of doing without this audit, I am firmly convinced that the work will not suffer, while the gain in other respects would be very great.

I would say that for works under Rs 5,000, the accounts submitted to the examiner should only show the total charges against the work

I believe that any other alteration will merely have the effect of shifting the work from one office to another without materially lessening it.

I have not written at length because your letter has been delayed by reaching Allahabad after I had left

COLONEL E SWETENHAM, S C.,  
*Superintending Engineer*

These you will find indicated in my letter of the 7th January, paragraphs 12 to 16

MR. W DRAKE-BROCKMAN,  
*Superintending Engineer*

The number and details of the accounts now required to be sent up to the examiner by subdivisional officers monthly, quarterly, half-yearly, or yearly, should be reduced, and there should be as little writing as possible

The accounts should be simplified in form and size in some instances, and made less elaborate, all redundant matter being got rid of, as also writing

Sub divisional officers, who, under the system in force in the Buildings and Roads Branch of these provinces, are practically the executive engineers of their own districts, make their own plans and estimates, carry out their own works in accordance with these plans and estimates, and are their own disbursers in every instance, should be held directly responsible for all unauthorized deviations and excesses over estimates, and for the proper and economic execution of all works undertaken by themselves

Farther notice than is now given, or the present procedure admits of being given, should be sent to sub divisional officers and controlling officers, of irregularities committed by the former and requiring to be checked by the latter, so that there may be no *running on* of objections, till it is too late for any action to be taken in regard to them

The examiner's check should be more of a *general* one, and not confined to petty details, so that his work in the auditing of the accounts may be considerably reduced, and more rapidly carried out than it now is

The sub divisional officers or district engineers should have a stronger office than is now allowed them, to secure the prompter and more effective disposal of the "*accounting*" work in these offices than the staff at present allowed is capable of

Mr G J LOFTON,  
*District Engineer*

I would recommend that the reforms tend in the direction of simplifying the system of accounts to the utmost, and of eradicating that tendency to elaboration of which over-elaboration is the eventual result. That the system be such as to make the engineer, in the least time and with the least labour, to prepare, or keep, in forms of the simplest and most intelligible kind, all such accounts only as are absolutely necessary for a complete record, so that he may have more time than he has now, to think of and attend to his professional duties

Mr G R BIRD,  
*District Engineer*

Simplification of forms that contain merely a repetition of information given in other returns and statements should not be required from officers employed in the execution of works

Mr A W SLATER,  
*District Engineer*

I would recommend that nothing but cash book and vouchers should be required, and register of works which gives all information required.

## APPENDIX H.

MR R M LEWIS,  
*District Engineer*

To dispense with all forms which are registers, such as day-books, &c, as they serve no useful purpose, and the simplification, if possible, of those that are retained

MR G W K MARTIN,  
*District Engineer*

The cash book should be written up in its fullest detail according to subheads of estimates, and supported by vouchers for each payment, from this every transaction can easily be traced. The inspecting officer of accounts and divisional engineer can check on the spot, in the offices of the sub-divisional officers. Register of works should also be kept up and road metal return, monthly

SUB-CONDUCTOR A PERKS,  
*District Engineer*

Under the present provincial system neither the sub-divisional nor divisional officer have anything to do with compiling accounts. The sub-divisional officer merely submits his cash book and vouchers direct to the examiner, and these, together with the register of works, are all that he has any thing to do with. Divisional officers have nothing to do with the accounts. This is as it should be, as it leaves executive officers free to prepare projects and superintend works. And it appears to me that the compilation of accounts can be better and more economically done in one central office.

DHURANIDIHUR BANERJEE, RAI SAHIB,  
*District Engineer*

I would wish that the unnecessary labor in the preparation and compilation of accounts can be curtailed by reducing the number and details of the present code forms used. Simplification of muster rolls and day-books are very necessary.

## BOMBAY

MR. T D LITTLE, MICE,  
*Superintending Engineer*

Reduce the labour of showing expenditure by items as far as practicable

Discontinue the complicated and elaborate accompaniments to the credit application

Audit as far as practicable from initial account documents by which means labor in abstracting and copying can be saved, and the nearest approach to an efficient audit secured

It is, however, difficult to be brief on a subject which requires a close consideration of details, and I prefer that my views should be taken from my former replies

MR C T BURKE,  
*Executive Engineer*

I would strongly recommend that the system of travelling audit, now temporarily sanctioned for this presidency, be extended to the Public Works Department throughout India, to replace the present system of post audit

This system will effect reductions of work, at the same time securing an increased efficiency that can scarcely be attained so successfully by any other means

LIEUT-COLONEL W OSBORN, R E,  
*Executive Engineer*

Reforms should be directed to separating the engineering and the account work. Let the engineer and his subordinates be answerable for keeping the initial accounts in full detail, but then let their responsibility cease, let one or at most two statements of purchases be sufficient, avoid trying to get all conceivable information into one form or set of forms, *vide* day-books and applications for credits

M M MURZBAN, KHAN BAHADUR,  
*Executive Engineer.*

More latitude should be given to the executive engineers than is allowed by the code rules in the matter of sanctioning works and repairs, and also for acceptance of contract

Reduction of paper work, such as schedule of expenditure, schedule of establishment charges, list of petty works, return of rentable buildings, work vouchers, statement of income tax, daily reports, completion reports, &c, &c

MR E K REYNOLD,  
*Executive Engineer*

Such account documents as take up much time and have little corresponding advantage—and there are many such—should be either totally abolished or rigorously curtailed and revised

HIMUTLALL DHIRAZRAM, RAO BAHADUR,  
*Assistant Engineer*

The system of keeping accounts according to items of an estimate may be discontinued, and the several other changes I have suggested in my detailed notes, if approved, will, I believe, reduce clerical work considerably without sacrifice of efficiency

#### BENGAL

LIEUT COL G F E S NEILL, S C,  
*Superintendent of Works*

I think the most practical reform would be to place the compilation of accounts in the examiner's office. The executive engineer could supply the examiner with the initial accounts, and the examiner could compile these into any form that may be considered necessary. He could also furnish the executive engineer with work vouchers for each work in which actuals would be compared with estimates. This could take the place of registers of works

Examiners would, under this arrangement, be in a position to bring to the superintending engineer's notice all irregular expenditure almost as soon as it is incurred. At present superintending engineers do not know of irregularities till months after they occur. The only remedy for relieving sub-divisional officers of work is the development of work by contract and in relieving them of charge of stock. The extent to which this can be done varies with locality. In Calcutta

and neighbourhood it could be carried to the furthest limit, but in less civilized parts, contractors may not be procurable

MR H N C CLOETF,  
*Executive Engineer*

In any way which would tend to relieve executive officers of desk work—which takes them from their professional and administrative work—and occupies their time with work which necessarily has to be attended to, but which could be as well done by trained accountants, I suggest for consideration whether the compilation of accounts could not with advantage be made in examiners' offices

MR J D DAVIES,  
*Executive Engineer*

I suggest that the following accounts may be prepared in executive engineer's office

- 1 Cash book
- 2 Day books
- 3 Stock returns
- 4 Contractors bills
- 5 Work vouchers
- 6 Register of works

MR W GIRLING,  
*Honorary Assistant Engineer*

Reducing the number of forms at present in use, without impairing a proper check on expenditure

#### MADRAS

LIEUT-COL R R E DRAKE-BROCKMAN,  
R E,  
*Chief Engineer*

The reforms should tend, I think, to a working back to the far simpler form of accounts which obtained when I first entered the department in 1864. Officers were then able to look more closely into their executive duties, notwithstanding that the agency subordinate to them was of smaller numerical strength than it is now

MR C H B BURLTON,  
*Executive Engineer*

I would recommend that all paid bills with an extract of the executive engineer's cash book be sent direct to the examiner, so that he may collect all expenditure in the necessary tabular statement, and thereby relieve the executive engineer from concerning himself with a large multitude of papers called monthly accounts which are absolutely useless to him as an engineer, and which give him no information that he cannot get from his cash book, his register of works or his monthly progress report of expenditure

MAJOR A W SMART, R E,  
*Executive Engineer*

I am of opinion that reform is possible in these directions with regard to—

- 1 Audit
- 2 Responsibility for compilation of accounts
- 3 Simplification as far as possible of forms

First as to audit, I consider that the audit should be made at each divisional office, say once in three months, by travelling auditors, either attached to the circles or sent from the central office. The system would be something similar to the present post office system. Examination of the offices are now made by examiners once in six months or once a year, what I propose would be simply an extension of this system. Audit once in three months by officers of the grade say of superior accountants, and once a year, or every two years, by officers of the superior grades would, I consider, lead to a great saving in establishment, to a great diminution of correspondence, to less clerical labor and to other advantages. If this system were adopted there would be no necessity for vouchers being submitted to the central office, except perhaps in the cases of salary and travelling allowance bills.

2 If the present highly elaborated system of accounts is an absolute necessity, the responsibility of compilation should rest with the accountant, who is presumably trained to the work, and not with the executive engineer. The latter should be held responsible simply for his cash book, and for such forms as may be said to be connected strictly with his professional duties. The accountant should correspond direct with the examiner.

3 Simplification of forms is a matter for trained accountants and for business men. What is the system in force in a large business firm? Is the system as complicated as in the Public Works? I expect not.

## IRRIGATION

### PUNJAB

LIEUT -COLONEL F J HOME, R E,  
*Superintending Engineer*

The following are the points to which attention should be paid in reforming the accounts system

- (a) To recognise the fact, in the Irrigation branch at all events, the sub-divisional officer, and not the divisional officer is nearly always the real disburser, and to hold him responsible for the correctness of all measurements and payments.
- (b) To simplify the accounts to be kept and submitted by the sub divisional officer, as far as possible, the utmost use being made of essential records, such as the cash book, muster rolls, and measurement books, &c
- (c) To reduce the work of compilation in the divisional office, which now necessitates the employment of several clerks in addition to the accountant, and to concentrate this work into such forms as will enable the divisional officer to maintain a proper check over the monthly expenditure of his sub-divisional officers, the progress of the works under their charge, and the rates at which they are working.
- (d) To reduce the mass of papers which has now to be submitted by the divisional officer to the examiner every month, and to restrict the examiner's duties to

## APPENDIX H

matters of accounting pure and simple, which should lead to a considerable reduction in the cost of the examiner's office

- (c) To transfer to the superintending engineer the scrutiny of irregularities and probabilities of excess, as contemplated in Public Works Code, XII, 71

MR. H GARBETT,  
*Superintending Engineer*

The forms, statements, and certificates should be curtailed, and the officers' work restricted to actual measurements of work executed, and actual payments made

MAJOR J W OTTLIFY, R E,  
*Superintending Engineer*

Simplification of forms, abandonment of every unnecessary form or part of a form, of multiplicity of signatures, of cross additions, &c, and I should like to see more elasticity in the forms used. Circumstances alter cases, and forms which are useful in one particular branch or on some special work may be useless and cumbersome elsewhere. All we require is a true and simple record of the expenditure of cash and stock, and those forms are the best in any given case which give us this information with the smallest expenditure of time and trouble—above all things information should not be repeated over and over again

Under the existing system it may be fairly said that 'accounts' come first in importance and 'work' second. I should like to see this reversed. At present there is often more trouble about a small error in accounts, absolutely unimportant in itself, than if the work itself fails.

MAJOR S L JACOB, R E,  
*Superintending Engineer*

Officers should be trusted more

They should be given more extended powers

They should be relieved as to the conscience by not requiring signatures to anything they cannot conscientiously sign to

The accounts should be the simplest possible, nothing should be done twice over, and engineering officers should only be responsible for the primary accounts, and not for collation of them

MR R BRADLEY,  
*Executive Engineer*

Reducing the number and elaborateness of accounts, forms, and relying upon executive officers to keep a proper check on their accounts, instead of submitting innumerable detailed forms to an audit office when the check is practically only an arithmetical one.

MR. J J MULLALLY,  
*Executive Engineer.*

The general direction to take is the reducing the size of the divisions and subdivisions and increasing their number

The accounts work can no doubt be to a certain extent reduced, but the sums of money spent and the interests at stake are so very great and the public is naturally so anxious to be perfectly sure of the honesty of the accounts rendered, that complete check and close scrutiny into the necessity for every work are becoming daily more necessary

MR R A MOLLOY,  
*Executive Engineer*

First, simplify initial accounts, muster rolls, daily reports, day-books, vouchers, abolish present form of day-book, and substitute a simpler form which should be compiled in the divisional office

Secondly, pare down and simplify returns required from the divisional office—

Cash balance statement

Letter of credit

Contingent bill

Schedules of receipts and expenditure

Cash and stock accounts current.

MR E A SIBOLD,  
*Executive Engineer*

The returns from disbursers should be simply such as to show clearly to what heads disbursements should be debited. Any attempt at an office check on these for daily labor and petty payments appears to be useless. The useful office check appears to be on rates where the work admits of rates being struck

MR J. T FARRANT,  
*Executive Engineer*

(i) No useless transcriptions, such as—

(a) copying muster rolls again in part II,

(b) copies of measurement book with bills,

(c) certified copies of vouchers,

(d) copies of receipts and issues from daily or 10-day reports into form No 9 (where this is not used as the primary record),

(e) copying of details of labor into day-books from daily or 10-day reports when this information can always be obtained if required

(ii) Expurgation of most of the voucher forms from the book of forms, and substitution of a few simple practical forms, such as—

a miscellaneous receipt form,

a running account form (used in connection with a running account book),

a final bill,

and of vouchers for Rs 10 and under



## APPENDIX H.

(iii) No useless signatures, such as the divisional officer's signature on bills already endorsed by sub-divisional officers And lastly,

(iv) Less paper work, and more frequent inspection by examiner's office

MR. J BENTON,  
*Executive Engineer*

For officers to be compelled to be most careful about cash, stores, measurements, payments, —not to be worried by the examiner about excesses over subheads, and such like, not to be called on to certify that one has done things completely out of their power Forms to be cut down to the least number which will cast the expenditure in reasonable detail All detail not absolutely necessary in the final accounts of the empire, nor in those of administrative and executive officers, should be omitted All accounts which lead up to the reduced detail would be much simplified It is better by far to be without a great deal of detail than to pay several hundreds of times its value for it, there is always some other way of arriving at what is wanted

MR W J GREER,  
*Executive Engineer*

Firstly, in the preparation of estimates.

I submit that it is not necessary for the purposes of correct accounting that petty details and sub-heads should be abstracted, and, when sanctioned, a full copy of each particular in the abstract should be sent on to the examiner In nine cases out of ten alterations when executing works are found necessary, and these alterations when carried out sometimes completely change the sanctioned figures of an estimate It is in my opinion quite sufficient to forward to the examiner in the shape of a subhead, when there are several works of the same kind to be executed, the character of the work and its estimated cost This would strengthen the hands of the engineer, and save a great deal of accounting, and worry in the shape of explanations which, so long as the present system obtains, must be brought to notice, and asked for by the examiner when discrepancies between estimated figures and those actually found by measurement occur Vouchers for all petty payments are expected, and this procedure might with advantage be modified The cash book might be made the basis of a statement which could easily replace the present day-book and register of works, and if the cash book were written up in detail, copies of vouchers might be done away with Numbers of the forms now sent in with monthly accounts might be dispensed with, and others greatly reduced as regards the details required

MR R E PURVES,  
*Assistant Engineer*

I would recommend simplifications and modifications all round, and chiefly in the preparation of abstracts from the initial or primary accounts, taking the shortest way to get at what is absolutely needed and expunging unnecessary repetitions.

## APPENDIX H

MR. T R J WARD,  
*Assistant Engineer*

That pay sheets be in the simple form of a list of names, with a note on the back thereof to what work chargeable and what progress made.

That daily reports be done away with.

That a works ledger be used instead of day-books, which will avoid the making of duplicate copies of day-books as under the present system

That vouchers be made from measurement books, which should be the prime record of the sub divisional office that no copies of work vouchers be made or kept

In this way it is desired to reduce the work on the sub divisional office in connection with payments for work to a measurement book or cash book, and the preparation of single vouchers from the measurement book

Some improvements can be made in the stock forms But the labor saving improvements will be in pay sheets, daily reports, vouchers and day-books

MR R P RUSSELL,  
*Assistant Engineer*

In my opinion the existing forms of accounts, owing to their inelasticity, complicated nature, the elaborate detail required by them, and rather to hamper work, to put an unnecessary amount of work on accountants, and to incite subordinates to subterfuge, than to form any real check on expenditure

Every sub-divisional officer knows that if a subordinate wishes to be dishonest, no system of accounts will prevent him from being so He will have no more hesitation in signing a false certificate, or making a sham voucher, than he will in making up a fictitious account in the first instance The only real check on expenditure, is a comparison of it with the work executed, and the sub divisional officer is the person in the best position to make this check In my opinion, therefore, this point should be kept in view, and generally speaking more discretion in exercising checks should be left to the sub-divisional officers, and less importance should be attached to the obtaining of a voucher for every petty little payment, and the signing of innumerable certificates

In the forms for initial accounts, in addition to the above, it should be borne in mind the way in which labor is collected, employed and disbursed The present muster roll form, although it may be well adapted to the case where a subordinate is in charge of one large work, is able to count his laborers himself and disburse them himself, is by no means suitable to the majority of instances in which a subordinate is in charge of a large area, often as much as 200 square miles or more, with numberless petty jobs going on in every direction, he is unable to count his own labor everywhere, or even to disburse it, he, therefore, employs 'mates' to do it for him, and it is on the daily, or less frequent, returns of these men that his muster rolls are prepared, and it is through these 'mates' that as often as not the various scattered gangs of laborers are paid The certificate on this form is, therefore, useless One other point may be cited as showing how the present forms tend to make the subordinate resort

## APPENDIX H.

to subterfuge I have never yet known a native subordinate to fill in the 'arrear of labor part' of a muster roll. The reason is obvious, it is not that he never has any 'arrear of labor,' but the extra labor, and complications which would arise if he attempted to discriminate between all the laborers on the numerous petty jobs who were present or absent at the time of disbursement, would soon land him in such difficulties that he prefers to adopt the simpler plan of paying the 'mate' in charge, on account of all, or at any rate the absentees. The 'mate' is easily accessible to the laborers, and are disbursed by him in the village. The account then, as far as the subordinate is concerned, is closed. These two points are merely given as showing how the present initial forms, when the existing system of employing and paying labor is taken into consideration, are impracticable. Similar points regarding other forms might be easily instanced.

As far then as initial forms of accounts are concerned, in my opinion they should be of such a nature as to be perfectly practicable. In designing them, it should be borne in mind—

*1st*—The system that they have to suit

*2nd*—The class of men who have to write them up

They should be simplified to meet absolutely essential requirements and nothing more. They should be such as to be readily complied with, without it being necessary to resort to any subterfuge whatever.

As regards the other forms for the distribution of expenditure under its proper heads, sub-heads, &c., the chief aim in my opinion should be to reduce the forms so as only to show what is actually necessary for the general control of expenditure, and to enable the divisional office to compile its accounts and satisfy itself that there has been an adequate return for the outlay expended, without going into the minute detail that at present seems necessary. They should be so designed that the repetition of detail should never be necessary, and even totals should be repeated as little as possible, in short, all mere copying work which only increases the chances of error, should be reduced to a minimum.

MR F W MAUNSELL,  
*Assistant Engineer*

I consider the present system of repetition in accounts and multiplication of forms should be avoided, and that more should be left to the discretion of executive officers.

They should not be called upon to certify absurdities, nor should they be obliged to submit unnecessary forms.

It seems to me that some of the work now done in examiner's office might be done by the divisional office.

## NORTH-WESTERN PROVINCES AND OUDH

LT-COL. G T SKIPWITH, R E,  
*Superintending Engineer*

The accounts should be simplified as much as possible, and when an irregularity occurs of any kind, it should be visited upon the offender, not upon the whole department, as is now too often the case, by adding forms and requiring additional details.

MR J S BERESFORD,  
*Superintending Engineer*

I doubt if the work of sub-divisional officers can be reduced materially. The divisional officers should be more trusted and relieved of much of what is practically useless correspondence with examiner. Except in a few items of travelling allowance, I know of no cases within the last 18 months in this circle, where the examiner's office has saved Government six pence. Formal audit is of course required, but it need not be monthly, and might be done by a travelling auditor.

MR C G PALMER,  
*Executive Engineer*

(a) The accounts should principally rest on a basis of measurement book record and personal responsibility, instead of, as now, on elaborately filled up 'vouchers' which are a waste of time and paper on a mere paper check.

(b) The divisional accounts should be audited in the divisional office by a travelling auditor and corrector of errors in compilation. They should not be sent to the examiner's office.

(c) Nearly every existing form of accounts can be largely simplified with advantage, a large proportion can be done away with altogether.

(d) With a system of travelling audit all the accounts can be posted in ledgers and none need be made out in duplicate.

(e) The lowest disbursing subordinates should be recognised as agents to do work at certain fixed rates, making their own arrangements therefor in fact, as petty contractors receiving a retainer fee. This kind of subordinate would be paid much less than the present sub-overseers and overseers.

CAPTAIN J CROBORN, S C.,  
*Executive Engineer*

By the abolition as far as possible of all copies, the reduction of clerical work in sub-divisions, in which the cash book, the measurement book and the *final* bill should be the only detail records.

For divisional offices by the substitution of book or ledger kept accounts—instead of the loose monthly sheets now used, this would entail the examiner becoming a travelling auditor.

By the simplification of the present system of providing funds, and the travelling allowance rules.

MR R W L HAWFIS,  
*Executive Engineer*

(1) Powers of divisional officers should be extended.

(2) Fewer and simpler returns.

(3) Fewer signatures on documents.

(4) Returns should be more evenly distributed throughout the year.

(5) Accounts should be compiled *monthly*, but the results should be embodied on forms drawn up for the *whole* year. This would save an enormous deal of labor, time, postage, printing, stationery, &c. I have already submitted forms to this effect with my written answers.

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MR W GOOD,  
*Executive Engineer.*

- (a) Less elaboration of vouchers
- (b) Submission of accounts in a more abstracted form by all officers and insisting on the responsibility of each officer for the keeping up, in books, of the details from which the abstracts are compiled
- (c) Completely relieving examiner from auditing rates and insisting on responsibility of the engineer branch for rates
- (d) Increasing powers of all engineer officers in dealing with the details of such matters as budget grants, contracts, and travelling allowances
- (e) Broadly recognising the principle that the circumstances of each province and each branch in a province differ and require greater elasticity in returns and forms Insisting on examiner of accounts paying more attention to this principle

MR M NETHERSOLE,  
*Assistant Engineer*

Reduction in number of vouchers for all petty payments by taking them singly instead of in duplicate, and the curtailment of examiner's duties in respect of checking the accounts in such detail as is now the practice I consider that the whole work of *checking* the accounts should be done in each office separately by the examiners when on inspection duty, and that no work beyond *compilation* be carried on in the examiner's office Only such papers as are necessary for compilation purposes should then go to examiner as monthly accounts, the whole of the papers supporting the accounts which are necessary for checking purposes should be retained in the disbursing office.

MR C HILL,  
*Executive Engineer.*

1 Simplification of forms, especially vouchers, abolishing all certificates, needless references to measurement book, sanctioning authority, previous bills, &c

2 The use of alternative forms should be made optional

3 Combining the day-book with voucher and register of work in one form, thus attaining the present end with one entry instead of three

MR A L WEBB,  
*Assistant Engineer*

Unnecessary signatures, and vernacular vouchers for small amounts, signatures of witnesses when amounts are paid by sub-divisional officer personally Unnecessary sub division into sub-heads of small estimates

## BOMBAY

MR J E WHITING, M I C E,  
*Chief Engineer*

The accounts should help the works since they are to some extent a record of works

The simpler the accounts, consistent with clearness, and the less copying and correspondence the

## APPENDIX H.

better Everything that can be done on the spot, or at the executive engineer's office, should be done and recorded there, and checked and audited there This would allow of much more elaborate record and check, and be in reality simple and more effective than present system

MR H G PALLISER, M I C E,  
*Executive Engineer*

Let the executive engineer be responsible once sanction is passed, and abolish illusory checks, establish closer personal relation between examiner and executive engineer, and convert audit from a distance on compiled documents, to audit on the spot on books and initial vouchers, and simplify returns, calling for none which are not absolutely necessary under a reformed and rational system

MR. S REBSCH, A M I C E,  
*Executive Engineer*

All entries in the cash book and journal should be posted direct into ledgers in such detail as may be absolutely necessary, a comparison between actual and estimated expenditure being shown in the last named

The expenditure as shown in the ledger might then be posted to service ledger heads, which would show the cost against the various service heads

MR S B DOIG, M I C E,  
*Executive Engineer*

Simplifying and reducing the account papers

MR A HILL,  
*Assistant Engineer*

To omit all copying and recopying, and to send to the examiner, public works accounts, only bills,—to keep the measurement books and similar original records neatly and systematically and arrange that the examiner on his visits of inspection examines these original records That is to say, the examiner should compare the original figures of the engineers with the bills paid, and not, as now, compare together lists of figures compiled by a set of clerks who are practically part of the examiner's office permanently with the executive engineers, and whose work it is heavy and needless labor for the executive engineer to examine.

## BENGAL

MR C W ODLING,  
*Superintending Engineer*

I —The first reform required is some measure of decentralization by which sub divisional officers will be vested with some power of finally dealing with bills of limited amounts. The examiner, practically recognizes no one but the executive engineer, and persistent endeavours are made to insist on every calculation in measurement books of sub-overseers for even the pettiest works, and all bills connected therewith being checked in the executive engineer's office. To such a length is this carried that objection is taken to bills for small sums being paid by sub-divisional officers of even the standing of executive engineer, before all the documents connected therewith have been checked in the divisional office.

II —The second reform required is to cease to require the executive engineer to sign documents of the correctness of which he can have no personal knowledge, and also details of compiled accounts. I take daily labor reports as an example of the first and individual entries in the cash books for each of which there must be a separate pay order endorsed on a voucher of the second.

III —The third reform required is a diminution in the number and bulk of the monthly accounts sent to the examiner. Books containing such of the information as is really necessary might be kept in the executive engineers' offices, but the accounts sent to the examiner should be confined to money accounts and vouchers, sub heads of estimates being omitted altogether, and brought forward from the books in the completion report only.

IV —The fourth reform required is to authorize examiners to pass small sums, say under Rs 5, without any close reference to rule, where there is no question as to the *bonâ fides* of the charge. I have lately had a lengthy and prolonged correspondence ending with the local government, where a gauge reader on Rs 5 per mensem, who can scarcely be expected to have an exhaustive knowledge of the Public Works Code, bought 3 annas worth of ordinary postcards, undeniably in the interests of the public service. An order from His Honour the Lieutenant-Governor was necessary to admit of the examiner passing this sum. The same principle applies to stock and tools and plant, deviations in which, to an amount that will not much more than pay the postage of the letters enquiring about them, should I consider be disregarded.

V —In irrigation divisions the expenditure is small and scattered over a wide area. The sectional officers are frequently sub overseers on low pay whose knowledge of the English language is not very perfect. Any want of cross references to page of measurement book, number of voucher and other minutiae which require almost a trained accountant to properly bring forward, leads at present to unfavourable comments and not infrequently to lengthy explanations. I mention this as I am apprehensive that if the talents of the examiner's office are devoted to raising sub-divisional to the standard of divisional accounts the remedy will be worse than the disease.

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MR. G W FAULKNER,  
*Executive Engineer*

I think that the general direction should take the form of throwing more responsibility on to the sub-divisional officer, to allow him more control than at present over measurements, &c., and in this way to simplify and reduce the work in the divisional office. The returns also to be submitted to the examiner, which now are very numerous, should be reduced in number and also in detail to save clerical labor. The executive engineer should be also freed from the enormous amount of initialling which he has now to do, which takes up so much of his time and prevents him being as much on his works as he should.

MR. J P SCOTLAND,  
*Executive Engineer*

Reduce the number of forms now in use and simplify others. Discontinue duplicates and triplicates of bills where practicable, also duplicates of vouchers. At present abstracts of all estimates sent up for sanction are prepared in triplicate. This involves a great deal of clerical labor on divisional office, and might be discontinued.

MR. A E SILK,  
*Assistant Engineer*

As far as sub-divisional accounts are concerned, there appears to me to be a great deal too much copying to be done. The primary accounts might, I think, be recorded in the sub-divisional office as soon as the divisional office has compiled the divisional accounts from them.

## MADRAS

MR. G T WALCH,  
*Chief Engineer*

Briefly, the "general direction of the reforms" I would recommend is that of simplification of the many forms, statements, returns and vouchers and a great reduction of their number, to be effected chiefly by giving up the pretence that the accounts branch is to, or can, keep down the cost of works, and by sweeping away "work vouchers" and their attendant train of worries and wasted labor. Let the examiner's duties be confined to little more than seeing that funds are not obtained or spent without allotments on due authority, that expenditure is duly accounted for and supported by the necessary vouchers, that expenditure is charged to the proper heads, that grants are not exceeded, that excess on individual estimates above a certain fixed amount is in all cases brought to notice of and dealt with by the sanctioning authority, and that completion certificates are, in the cases in which they are required, properly prepared.

MAJOR D McNEIL CAMPBELL, R.E.,  
*Superintending Engineer*

I do not propose any alteration in the general system, but clerical labor can be considerably reduced if the suggestions embodied in the questions under reply, and which I have approved, are carried out.



## APPENDIX H

MR H H O'CONNELL,  
*Executive Engineer*

Decentralization of the examiner's office I am of opinion that the accounts should be examined at the head-quarters of executive engineers, and not sent down to Madras. This would save much clerical labor and many references.

MR S D PEARS,  
*Executive Engineer.*

Decentralization of audit, *i e*, that instead of one central examiner's office, I would have 2, 3, or 4 travelling auditors for the presidency, who would personally audit each office once in, say, 3 months.

The auditors should be under the orders of the central office of the examiner, who would then audit establishment bills only, and nothing else. The advantages of this system would be (1) economy, since the reduction of the central office, and the saving of labor, stamps, and stationery now expended in copying vouchers and transmitting compiled accounts to Madras, would more than pay for the travelling auditors and the very small establishment they would require, and (2) efficiency, since personal audit is more effective than an audit by correspondence, both for the discovery of objections and for the suggestion of means for their prompt removal.

The auditors should if possible be gazetted officers.

MR C VINCENT,  
*Executive Engineer.*

The following are among the reforms I would suggest, but they must not be held to include all that with more time for consideration at my disposal I should consider advisable —

- (a) I would make a ruthless sacrifice of all returns and calls for information not obviously essential.
- (b) I would insist on all *circular* calls for additional returns and information having the previous sanction of government. As matters stand the examiner can, and often does, call for information involving much labor upon his own responsibility, adding the offensive *brutum fulmen* that the information should be full and complete as it may have to be submitted for the orders of government.
- (c) I would enlarge the powers of executive engineer as regards sanctions and the submission of vouchers. For instance, what can be more ridiculous than having to submit with the contingent bill, telegraph receipts, receipts for service labels, and insufficiently stamped covers. I would also allow the superintending engineer to dispose of all the petty objectionable items as regards works, and in the travelling allowances and salary bills. I would allow the executive engineer to pass all halting allowance claims.
- (d) I beg to invite particular attention to the ruling under which in Madras cheques drawn are not entered in the cash-book as soon as drawn, but not until they have been delivered to the payees or sent

## APPENDIX H.

to their registered address I am sure such procedure is as wrong as it is undoubtedly inconvenient. It involves the keeping of an unofficial record of cheques drawn, and the cash book becomes a comparatively valueless record. The object of this curious rule is to prevent cheques being drawn at the end of the year to reduce allotments, and not paid away. But it is using a steam hammer to crack a nut to frame this rule for such an object. Offenders in this way could easily be detected and dealt with, whereas, as it is, a whole department is permanently inconvenienced.

MR J J WHITELEY,  
*Executive Engineer*

Reforms in minor details as noted within might be made. No useful practical reforms could be initiated without a thorough alteration in the conditions of the department.

MR C A SMITH,  
*Executive Engineer*

I am of opinion that the time of an executive engineer is taken up too much in scrutinizing accounts for which the accountant might perfectly well be made responsible. The executive engineer should only be made responsible for the initial accounts such as the cash book, refund statement, &c, and all accounts which are merely abstracted from these initial accounts such as cash abstract, cash accounts current, &c, should be prepared by the accountant who should be responsible for their accuracy.

## 2 ACCOUNTS OFFICERS

COLONEL P LAMBERT, R E,  
*Examiner, 1st class*

Speaking for the Punjab, I would recommend the reduction in size of divisional charges and the recognition of the extra work which is entailed on the divisional office by the creation of independent executive charges. I would also recommend more discretionary power being given to divisional officers in dealing with petty works and repairs, the raising of the limit for submission of petty vouchers and reduction in the number of signatures and certificates required from executive officers. The alternative forms might also be done away with and one kind of form introduced for general use.

MR D C GORDON,  
*Examiner, 1st class*

(a) Greater responsibility imposed on superintending engineers for the value and performance of work, just as if they were responsible to government for passing work done by an independent and respectable firm of contractors.

(b) Greater confidence in the probity of executive officers

(c) Removal of irritating petty check and countercheck, and of routine (and therefore valueless) certificates on vouchers or in connection with accounts. Checks and certificates which imply doubt of the honesty of the officer

(d) Personal reckoning with those who commit errors, instead of infliction of grievous inflexible rules on the department as a whole

(e) Abolition of audit of vouchers in the examiner's office and introduction of travelling auditors for this work

(f) Abolition of "stock" and prohibition against obtaining materials, &c, except for sanctioned works and chargeable to the estimates for such works

(g) Scrutiny, by the receiving office, of each account and return and part thereof which issues from the examiner's office to higher authorities with a view to test what end is gained by their retention, what advantage lost by their abolition, especially in the volume of annual (Finance, Administrative, and Suspense) accounts and their probably quite unprofitable detail

MR S K L YEATS,  
*Deputy Examiner, 2nd grade*

Whilst preserving untouched the principle upon which the accounts are based, *viz*, that there should be an accurate record of how money is being spent and what funds are likely to be needed, I would suggest—

1st—The elision of all that is redundant or superfluous in the present forms of account

2nd—The simplification of certain forms

3rd—The removal from the executive engineer of any work in connection with the compilation of accounts for the audit office

2 I do not see that more can be done. The executive engineer has two functions, *viz*, that of a spender and that of a trustee of public funds. In the latter capacity he is bound to exercise economy and to prevent undue waste. And unless he can tell how his money is going or on what he will be required to spend money during the year, I anticipate that government will be put to very serious loss, quite out of proportion to the so called "relief" afforded to executive officers

3 There is no question that all that which is useless and redundant should come under the shears, but I do not consider that the *system* can be changed. All that can be done is to prune the tree, the tree itself must and should stand

MR F G. HEAVEN,  
*Deputy Examiner, 1st grade*

Decrease petty and vexatious demands for vouchers and certificates, treat executive officers as trustworthy, do away with audit by sub-heads of estimates, and with appropriations from budget grants

MAJOR W I LeBRETON, S C,  
*Examiner, 2nd class*

There are minor reforms such as the simplification of applications for credits, &c, but the principles which I would advocate are the discontinuance of day-books and registers of works replacing them by a "works ledger," and the discontinuance of keeping accounts of works by sub heads except in cases to be decided upon by the superintending engineer

Also the application of travelling audit wherever feasible, even if only partially so to a province, for it dispenses with the bulk of account statements to be rendered and of account correspondence, it undoubtedly is more thorough, increases efficiency, and reduces cost

MR E LUND,  
*Deputy Examiner, 2nd grade*

Abolish several of the forms, and simplify many of the remainder, raise the present limit of accounting by sub-heads of estimates, and increase the powers of executive engineers in accepting contracts and obtaining materials for sanctioned works

MR W A CRISP,  
*Deputy Examiner, 2nd grade*

Simplification of forms, modification of details Distinction between examiners' and superintending engineers' responsibility for professional details Longer intervals between the submission of certain periodical returns

LT COL H R LEM CAREY,  
*Examiner, 4th class, 1st grade*

The question is too large a one to be treated in this way For instance, in the replies I gave to your papers of questions, I was in favour of the abolition of sub-heads, so far as this office is concerned, up to the completion report But, just after that, I was asked by Joint Secretary, Irrigation Branch, the cost of repairs to a certain bungalow during certain years, and I could not give it, as on the project in question "Bungalows" were lumped, and so I had to refer the Joint Secretary to the executive engineer—a course to be avoided if possible

We are going on very well as we are, our accounts are clearly and carefully kept, and we are in a position to reply to questions and references almost immediately Generally, I think the Public Works account offices will compare very favourably with any other account offices in India, and I would deprecate any change

MR E J NEUVILLE,  
*Deputy Examiner, 2nd grade.*

Extending the estimated limit of works, the outlay on which has to be detailed by items of estimate and extending the powers of sanction of executive engineers

Some of the account forms may be modified

## APPENDIX H.

MAJOR H CLARKE, R E,  
*Examiner, 4th class, 3rd grade*

The principal direction in which improvement could be effected is in (a) the simplification of the record of cost and quantity of work, *ie*, the simplification or abolition of day-books and work vouchers, (b) the introduction of somewhat less rigid audit by disregarding expenditure plus or minus on sub-heads of an estimate so long as the general total of the latter is not exceeded, (c) the introduction of books or bound records for the present system of loose sheets

NOTE — If it could be arranged I think a redistribution of the financial year would be advantageous, so as to coincide with the working season, *ie*, the year should end 30th June with the commencement of the rain and consequent cessation of work. Failing this, I think the calendar year has advantages over the financial year

MR I S SHERLOCK-HUBBARD,  
*Examiner, 4th class, 2nd grade*

The directions in which I am of opinion simplification is possible are the following —

- i simplification of form of muster rolls,
- ii abolition of day-books and substitution of a works ledger,
- iii abolition of work vouchers,
- iv restriction of schedule 32 O to charges of the month only,
- v use of form No 16 instead of No 14 except for final payments to contractors,
- vi simplification of forms of half-yearly returns of stock and tools and plant,
- vii amalgamation of stock with cash accounts to the simplification of numerous forms,
- viii abolition of the restriction against using miscellaneous receipts,
- ix substitution of cash payments for transfer adjustments

MR. H RAINIFR,  
*Deputy Examiner, 1st grade*

The proposed works ledger is exactly what I think wanted in lieu of the massive and dense work abstract (or day-book) and complicated system of ten-day reports. This will effect much reform, but beyond this, and I think above this, is the necessity of stopping all the present system of audit note and the recrimination and friction it involves without much useful result in eliciting information or correcting errors. Our inspection test audit has almost always found out things not known in the Madras office, and in many cases it has effected important corrections of irregularity which would have been quite impossible from Madras. An executive engineer invariably courts the fullest enquiry, and gives his explanations, &c, with the utmost frankness when consulted orally, and an hour's such consultation over a pile of vouchers (the result of a raking through of the accounts of three months) is worth days of ink work in the compilation of audit notes and objectionable item statements which have more effect in irritating and puzzling the executive engineer's office than in effecting their intended salutary purpose. I therefore propose that all *post* audit

should be done on the spot, and I submit that in this presidency we have certain clusters of divisions admirably adapted for such audit

But let us take one such cluster and give it a trial. Take, for instance, the Kistna and Godaveri divisions, connected by a uniformity of almost every working condition, their accounted works being similar, one set of regulations being common to all and communication between them, by canal, being easy, they comprise —

- (1) Kistna Western
- (2) Kistna Eastern
- (3) Gudwadu Division
- (4) Godaveri Eastern
- (5) Godaveri Western
- (6) Godaveri Central
- (7) Godaveri Workshops

For the auditing of these divisions twice a year the following staff should suffice —

1 Accountant, 2nd or 3rd grade  
 1       "       4th       "  
 1 or 2 clerks and 1 peon

Say Rs 500 per month \* The advantage of such local audit would be, I think—

(1) That audit on the spot would be more effective †

(2) That it will obviate the necessity of sending vouchers to Madras, which of course includes the work voucher, a most ponderous document. The copying saved in the executive engineers' offices would then be very considerable

(3) That the proximity of the local auditors would be of much advantage to the executive engineers, affording them ready information in account matters

(4) That if extended to the whole presidency such a system would greatly tend to economy. Three audit circles might be formed at a cost not exceeding Rs 600 each, or with travelling allowance Rs 750, to do all the post auditing now done at a total cost of at least Rs 3,000 per month

Attached to each audit circle, I would have a stock and materials verifier as later on referred to

The yearly inspection of every division by a gazetted officer, and test audit, should, I think, be continued

(5) Under the head "measurements," I have suggested a "work book" which, while combining the information of the present measurement-book, measurement list, and contractor's bill, is only a slight addition to the labour now involved in the former

Another point for which I can find no suitable heading in these suggestions (so include it here) is that the presidency division, the head-quarters of which are at Bangalore, has office functions other than those appertaining ordinarily to a divisional office, namely, the payment of all presidency salaries and of advances ordered by the secretariat to officers after furlough

\* It is supposed that an accountant, 2nd or 3rd grade, would suffice to head such an audit party as is here proposed being of at least equal rank to a clerk in the Civil department exercising the functions of district auditor

† More effective in eliciting particulars of any irregularity when found, and more irregularity would be detected, the work would be all the better done too, because an auditor would while auditing be free from other duty, it is believed that the audit in the Madras office is far less effective than is supposed, mainly because an auditor is frequently interrupted with other duty, such as case work or work relating to codification

## APPENDIX H.

It would greatly convenience the recipients of advances and work better as regards salaries if all these payments were made in the examiner's office by a duly qualified cashier or by an under officer

This would relieve the presidency division of much office work also, and be as easy of arrangement as in the Civil department

## SUNDRY OFFICERS

MR. J G H GLASS,  
*Superintending Engineer*

Lessening the number of forms in use, simplification of necessary forms and substitution of simpler forms for some of the existing ones

MAJOR H C FOX, R E,  
*Executive Engineer*

While the executive engineer should be held responsible for the correctness of initial accounts, he should not be held responsible for more than punctuality and general correctness as regards the compilation therefrom. The relations between executive engineer and examiner require alteration. The latter should assist rather than find fault, and should have more power to dispose of unimportant and trifling mistakes and omissions without troubling the executive engineer

LIEUT -COLONEL T O WINGATE, S C,  
for MAJOR W L GREENSTREET, R E,  
*Superintending Engineer*

Abolish duplicate work and simplify forms

CAPTAIN T DIGBY, R E,  
*Executive Engineer*

I would recommend that reforms begin from the top. Investigate the necessity of the returns required by different departments of Government, and of the forms and vouchers required by the audit department. Then ascertain what the examiner's department *must have* from divisions. All that should be required from subdivisions is a measurement book, a work voucher, and a simple form of stock account, and a muster roll in some cases

MAJOR F T N SPRATT, R E,  
*Executive Engineer*

I would somewhat extend the powers of divisional officers. I would limit the monthly returns to those absolutely necessary for the compilation of accounts. I would reduce the number of vouchers required and only call for certificates. The divisional officer should be responsible for the expenditure in less detail. The responsibility of bringing irregularities to light should be more with the superintending engineer than the examiner. All repetition in accounts or returns should be avoided. In short, a more practical and trustful system of accounts should be introduced

CAPTAIN G DAVIDSON, R E,  
*Executive Engineer*

The reduction in the number of forms and schedules submitted with the accounts and simplification of others where possible, reduction of clerical work by a further use of printing

Allocation sheet of daily labor for the month\* of 188

Dates of daily or ten day reports	SUB-HEADS.						TOTAL.
	A	B	C.	D	E	F	
1st .							
2nd .							
3rd ..							
4th .							
5th .							
6th .							
7th .							
8th .							
and so on to 31st							
TOTAL							
PROCESS FOR THE MONTH* .							

\* Or for any other period



Name of work —Constructing a bridge of 3 spans

Authority —G O No 324C, dated

FROM WHAT SOURCE POSTED		FOUNDATION MASOERY			ASHLAR SUPERSTRUCTURE			CENTERING			ARCHING, INCLUDING DRESSING STONES.		
PARTICULARS (In briefest terms for identification)	Cash book entry No	Quantity	Rate	Amount		Quantity	Rate	Amount.		Quantity	Rate	Amount	
Estimate No 12 of 1878-79	..	6,239	10	1,008	0 0	3° 000	18	5,091	0 0	3	208 7	609	0 0
Total to end of December 1879	..					1,100		212	5 0	7		100	0 0
JANUARY 1880													
Madho Ram s Contract Certificate No 5 of 25th January 1880	6°	..	..	..	..	..	..	..	..	..	..	..	..
Muster Roll for January 1880 of Petr Box	67	800	..	164	2 3	7,000	..	433	7 6	1½		311	11 0
Ram Box s Muster Ro 1 of January 1879 arrears	45A.	..	..	..	..	..	..	..	..	..	..	..	..
Adjustments	Page of adjustment book												
Gorakhpur Division transfer Advice No 10, dated 21st January 1880	14	..	..	..	..	..	..	760	0 0	..	..	..	..
From Church at Sherpur	15	..	..	..	..	..	..	..	..	..	..	..	..
Stock		800	..	164	2 3	7 000		1,916	7 0	1½	..	311	11 0
as per Stock return of B sub-division ..	..	..	..	..	..	..	..	..	..	..	..	..	..
aterials at site used on work as per return of X. sub-divisional officer	..	..	..	..	..	..	..	77	2 0	..	..	100	0 0
aterials transferred to repairs of Jail, Sherpur as per ditto	..	..	..	..	..	..	..	..	..	..	..	..	..
TOTAL CASH AND STOCK	..	800		164	2 3	7,000		1 323	10 0	1½	..	411	11 0
TOTAL TO END OF JANUARY 1880				164	2 3	..	..	1,535	15 0	..	..	511	11 0
Progress to same date	..	800	..	..	0 050	..	..	..	..	2	..	2 700	..
Rate	..			20 5	..			170				277 4	107

## APPENDIX W

Division.

Appropriation for 1879-80

Modifications during the year

Rs

6,000

1,000

{ -3,000

Total at end of year

4,000

of 20 feet over the Kali Nadi at Sherpur

12th November 1878

EARTHWORK.			METALLING			MATERIALS AT SITE		Gross amount of each Voucher	DEDUCT UNPAID AMOUNTS			TOTAL.
Quantity	Rate	Amount.	Quantity	Rate	Amount	Receipts	Issues.		Labor	Contract.	Total	
32 000	5	160 0 0	6 000	1 75	110	---	---	---	---	---	---	9,963 0 0
---	---	3 0 0	6 000	---	100 0 0	100 0 0	---	515 7 0	48 4 0	83 2 0	131 6 6	381 1 0
2,100	---	96 2 8	---	---	---	---	---	96 2 8	---	66 2 8	66 2 8	40 0 0
---	---	---	---	---	---	---	---	1 0 0 8 0	881 2 0	---	881 2 0	169 4 3
---	---	---	---	---	---	---	---	---	45 4 6	---	45 4 6	48 4 6
---	---	---	---	---	---	---	---	750 0 0	---	---	---	750 0 0
---	---	---	---	---	---	41 2 6	---	41 2 6	---	---	---	41 2 6
2,100	---	96 2 8	---	---	---	41 2 6	---	1,010 13 2	839 17 3	27 0 0	866 17 3	1 051 11 3
---	---	---	---	---	---	162 8 0	---	162 8 0	---	---	---	162 8 0
---	---	---	---	---	---	---	17 2 0	---	---	---	---	---
---	---	---	---	---	---	---	60 8 0	60 8 0	---	---	---	60 8 0
2,100	---	96 2 8	---	---	---	100 10 0	212 10 0	2 027 13 2	832 10 0	66 2 8	898 12 8	1,139 11 3
---	---	93 4 8	---	---	100 0 0	296 10 0	212 10 0	2,543 4 8	881 3 0	130 4 8	1,020 8 0	1,522 12 3
25,100	---	---	6 000	---	---	51-0-0		---	---	---	---	---
---	---	3 0	---	---	17	---	---	---	---	---	---	---



APPENDIX X.

PUBLIC WORKS DEPARTMENT.

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BUILDINGS AND ROADS BRANCH.

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PROVINCE —N -W P AND OUDH

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DIVISION —ALLYGHUR.

MONTH —*January 1880*

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Classified Abstract of Receipts and  
Charges.

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NOTE —The figures of the month contained in the present  
standard forms of cash and stock accounts and schedules  
are entered on this form.

## APPENDIX X.

ALLYGHUR

Receipts.

Classified Abstract for the

Particulars.	Items.	Amount	No of voucher
	Rs A P	Rs A P	
TO BALANCE AT END OF LAST MONTH	.	483 10 3	
TO CIVIL DEPARTMENT—			
II—Remittances from Civil to Public Works Department			
Cheques of Public Works Officers ...	29,765 6 3	...	1
III—Items adjustable by Civil Department			
Subscription to Service Funds			
Bengal Military Fund			
Subscription of Lieutenant A Brown, Executive Engineer, 3rd grade, for January 1880	30 0 0		
Uncovenanted Service Family Pension Fund			
Subscription of Mr D Jones, Assistant Engineer, 2nd grade, for January 1880	7 0 0	.	
Gain by Exchange			
On value of one pair lattice girders, value 420 at 1 7½			
per rupee .. 5,169 3 8	..	.	
Less par value credited to London Account Stores 4,200 0 0	969 3 8		
IV—Items adjustable by Public Works Department			
Payments for land for public purposes			
Compensation for 15 acres of land taken up for jail at Allyghur	1,893 8 0		
Inter-Departmental charges to Public Works Department			
Forest Department			
Value of 250 cubic feet of teak timber supplied by the Deputy Conservator of Forests, Allyghur, at Rs 3 per c ft ..	750 0 0	.	
Other Departments			
Convict labor employed on repairing district jail, Allyghur	210 6 0		
TOTAL CIVIL DEPARTMENT ...	...	33,125 7 11	
Carried over ...	..	33,609 2 2	

DIVISION.

month of January 1880.

Charges.

Authority.	Particulars.	Items			Amount	No. of voucher docket.
	By CIVIL DEPARTMENT—	Rs	A.	P	Rs. A. P	
	<i>I—Remittances to Civil from Public Works Department</i>					
	Payments into Allyghur Treasury .	1,594	8	0	1,594 8 0	11
	By TRANSFERS OF THE PUBLIC WORKS DEPARTMENT—					
	<i>Divisional</i>					
	Advanced Collector of Allyghur Acceptance No 6 of 10th January 1880 .. ...	400	0	0	...	12
	Advanced Superintendent of Police, Allyghur Acceptance No 2 of 6th January 1880 ..	200	0	0	..	13
	Advanced Tahsildar of Muttra Acceptance No 1 of 12th January 1880 . ...	300	0	0	,	14
	And so on . . .	1,780	0	0	...	15
	<i>General Branch</i>					
	Advanced Supervisor Williams transferred to Rajshahye division Acceptance No 75 of 29th January 1880 .	200	0	0	2,880 <sup>...</sup> 0 0	16
	By IMPERIAL WORKS—MILITARY WORKS—					
	<i>Original works</i>					
	<i>I—Accommodation for European troops</i>					
G. O No. 321, dated 15th January 1879	Converting a covered shed between barracks 1 and 2 into a hospital .	699	0	0	...	17
G O No 1325, dated 16th April 1879.	Fixing additional pegs to harness rack, Horse Artillery Lines, Allyghur ...	44	14	0	,	18
	Petty works (to be detailed) ...	10	8	0	...	19
	<i>III—Commissariat Buildings</i>					
G O No 2356, dated 13th December 1878	Constructing quarters for non-commissioned officers of the Khedda Department, Muttra .	209	1	1	..	20
	TOTAL ...	963	13	1	..	
	Carried over ...	963	13	1	4,474 8 0	

## APPENDIX X.

ALLYGHUR

Receipts.

Classified Abstract for the

Particulars	Items.			Amount			No of voucher
	Rs	A.	P	Rs.	A.	P	
Brought forward ..	.			33,609	2	2	
To CENTRAL ADJUSTING ACCOUNT—							
Value of sapper labor employed on European infantry barracks at Allyghur	102	3	0	102	3	0	5
To TRANSFERS OF THE PUBLIC WORKS DEPARTMENT—							
<i>Divisional</i>							
Balance of an advance of Rs 200 made to Accountant S Deen transferred from Allahabad.	100	0	0	100	0	0	6
To LONDON ACCOUNT—							
<i>Stores</i>							
Value of one pair lattice girders £420 ..	4,200	0	0	4,200	0	0	7
To CIVIL WORKS—PROVINCIAL—							
<i>Rents</i>							
Rents of quarters .. ..	180	0	0	...			8
<i>Sales of Buildings</i>							
Sold Raja Gopal an old shed ... ..	140	0	0	...			9
<i>Sales of Tools and Plant</i>							
Sold unserviceable carts to Narain Das ..	500	0	0	820	0	0	10
To DEPOSITS—							
<i>Contractors</i>							
Khetter Mohun Banerjee for Neela bridge ...	500	0	0	...			
<i>Subordinates</i>							
Ahmed Buksh, Sub-Overscer's security ...	200	0	0	700	0	0	
Carried over ...	...			39,531	5	2	

DIVISION,

month of January 1880.

Charges.

Authority	Particulars	Items	Amount	No of voucher docket.
	Brought forward ...	Rs A P 963 13 1	Rs A P 4,474 8 0	
	REPAIRS			
S E No 1321, dated 15th July 1879	I—Accommodation for European troops			
	Annual repairs to cavalry barracks, Muttra ...	30 0 0	...	21
	Petty repairs (to be detailed) .	176 13 0	..	22
	VII—General cantonment works— drainage			
	Draming, cantonment roads, Muttra	61 6 10	.	23
	TOTAL ...	268 3 10		
	Establishment			
	23 per cent on outlay on works and repairs	283 5 9		
	Tools and Plant			
	1½ per cent on outlay on works and repairs	18 7 9		
	TOTAL IMPERIAL WORKS ...	...	1,533 14 5	
	BY CIVIL WORKS—PROVINCIAL—			
	Original Works			
	(To be detailed as above) ...	19,912 1 3		(And so on)
	Repairs			
	(To be detailed as above) ...	257 1 6		
	Establishment			
	Salaries	1,760 0 0		
	Travelling allowance	180 0 0		
	Contingencies .	65 0 0		
		2,005 0 0		
	Deduct—			
	Debitable to Imperial Military Works	283 5 9		
	Incorporated local funds	1,193 14 9		
		1,477 4 6		
	Tools and Plant			
	Purchasing 500 shovels, Allyghur	1,454 15 0		
	Repairing iron roller, Muttra ...	217 9 0		
	TOTAL ...	1,672 8 0		
	Deduct—Debitable to Imperial Military Works, Rs—18-7-0			
	Incorporated local funds, Rs—77-13-9	—96 5 6		
	TOTAL	1,576 2 6		
	Carried over ..	22,273 0 9	6,008 6 5	

S E No 126, dated  
10th January 1880S E No 127, dated  
10th January 1880



## APPENDIX X.

ALLYGHUR

Receipts.

Classified Abstract for the

Particulars.	Items.	Amount.	No of voucher
Brought forward	...	Rs. A. P 39,531 5 2	
Carried over	...	39,531 5 2	

DIVISION

month of January 1880.

Charges.

Authority	Particulars	Items	Amount	No. of voucher docket.
		Rs A P	Rs A P	
	Brought forward .	22,273 0 9	6,008 6 5	
	By CIVIL WORKS—PROVINCIAL—contd			
	<i>Profit and Loss</i>			
	52 cubic feet of teak timber stolen from godown at Allyghur	180 0 0	..	
	DEBITS TO SUSPENSE HEADS—	22,403 0 9		
	<i>Stock purchases and sales</i>			
	Purchases from Gunput Roy ..	2,495 4 8	.	
	Sales in Hattrass sub-division .	404 0 0	..	
		2,899 4 8		
	<i>Stock</i>			
	Purchases received during month .	3,989 8 9	...	
G O No 1205, dated 15th June 1879	Manufacture of bricks at Allyghur	506 13 6	...	
G O No 1327, dated 10th July 1879	Ditto of lime at Muttra	1,369 0 0	..	
	And so on for other manufactures	1,529 0 0		
	TOTAL	7,394 6 3	...	
	Less value of stock materials used in manufacturing operations	2,418 0 0	.	
	TOTAL	4,976 6 3	.	
	<i>Miscellaneous Advances</i>			
S E No 328, dated 13th January 1880	Advanced Superintending Engineer for contingencies	400 0 0		
S E No 412, dated 98th January 1880	Advanced Collector of Allyghur for labor .	280 0 0		
		680 0 0		
	<i>London Invoices</i>			
	Value of one pair lattice girders per S S Aca G O No 1900-W, dated 2nd January 1880	5,169 3 8		
	<i>London Stores</i>			
	Value of lattice girders as above	5,169 3 8		
	TOTAL FINAL AND SUSPENSE HEADS ...	41,297 3 0		
	Carried over	41,297 3 0	6,008 6 5	

## Receipts.

Classified Abstract for the

Particulars.	Items.	Amount.	No of voucher
Brought forward	..	Rs A. P 39,531 5 2	
GRAND TOTAL	...	39,531 5 2	

DIVISION.

APPENDIX X

month of January 1880

Charges

Authority	Particulars	Items	Amount	No. of voucher docket
	Brought forward	Rs A P 41,297 3 0	Rs A P 6,008 6 5	
	By CIVIL WORKS—PROVINCIAL— <i>contd</i>			
	CREDITS TO SUSPENSE HEADS—			
	<i>Stock purchases and sales</i>			
	Purchased from Madho Sing 100,000 bricks @ Rs 5 <sup>0</sup> / <sub>100</sub>	800 0 0		
	Purchased from L Mahomed 3,555 maunds lime @ Rs 21-15-0	780 0 0		
	And so on	1,659 8 9		
	Sold stock materials	327 8 0		
		3,567 0 0		
	<i>Stock</i>			
	Value of materials issued to works, &c	4,151 12 10		
	<i>Miscellaneous advances</i>			
	Recovered advance from Balu Sing, Clerk	55 0 0		
	<i>London Invoices</i>			
	Value of one pair lattice girders	5,169 3 8		
	<i>London Stores</i>			
	Value of one pair lattice girders	5,169 3 8		
	TOTAL CREDITS	18,112 4 11		
	TOTAL PROVINCIAL WORKS		23,184 14 1	
	By CIVIL WORKS—INCORPORATED LOCAL			
	(To be detailed as above)		6,461 10 6	
	By DEPOSITS—			
	Returned deposit of Manu Singh, Con- tractor	985 0 0	} 1,385 0 0	
	Returned deposit of Ram Pershad, Storekeeper	400 0 0		
	TOTAL		37,039 15 0	
	By BALANCE AT END OF THE MONTH—			
	Cash in chest	1,791 6 2	} 2,491 6 2	
	Imprest with Overseer T Burke	700 0 0		
	GRAND TOTAL		39,531 5 2	



## APPENDIX Y

### PUBLIC WORKS DEPARTMENT

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DIVISION—ALLYGHUR

FUND—PROVINCIAL

DEPARTMENTAL HEAD—ORIGINAL WORKS

MONTH—*January 1880*

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#### WORKS SLIP

*Name of Work—Constructing the Necla  
Bridge*

*Authority—North-Western Provinces and  
Oudh Government No 3204 O, dated  
20th December 1878*

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## APPENDIX Y.

## WORKS SLIP.

NAME OF WORK—CONSTRUCTING THE NEELA BRIDGE.

MONTH—JANUARY 1880

*Comparison of Expenditure to date with sanctioned estimate.*

ITEMS OF WORK,	AS PER ESTIMATE			AS EXECUTED			Explanation of deviations, excesses, &c
	Quantity	Rate	Cost.	Quantity	Rate	Actual cost to date	
		Rs. A P.	Rs.		Rs. A P.	Rs. A P.	
1 Foundation, masonry	6,293 C Ft	16 0 0	1,008	5,932	11 14 2	705 4 6	
2 Ashlar superstructure	32,896 "	18 0 0	5,921	2,050	16 7 9	1,192 0 6	
3 Centering	2	100 0 0	800	2	350 1 0	700 3 6	
4 Arching, including dressing stones	7,807 "	25 0 0	1,951	2,700	31 6 0	817 4 9	
5 Cut stone coping	1,307 Rg 1 ft	1 0 0	1,307				
6 Forming road	1,030 "	37 8 0	375	482			
7 Earthwork	32,000 C Ft	0 8 0	160	4,000		257 12 0	
8 Metalling	6,300 "	1 12 0	110	5,300			
9 Contingencies		"	552			123 6 6	
10 Total of estimate and value of work done			12,227			4,155 15 9	
11 Add—Materials at site of work						842 6 0	
12 " Advances to work people							
				Total		1,998 6 9	Note—Important liabilities should always be noted in this column and their approximate amount stated
13 Deduct—Arrears due						153 2 9	
14 Total outlay to date						1,845 3 0	
Deduct—Outlay to end of last year						2,130 0 0	
16 Total outlay of current year						2,715 3 0	
17 Appropriation of ditto						600 0 0	Re appropriation applied for—rule No 1146, dated 30th November 1879

*Note—All entries would be printed except those falling in the "as executed" and "explanation" columns*

Work commenced—January 1879

Present state of progress, in general terms    Foundations completed    Superstructure half up to springing of arches

Dated 10th February 1880

Accountant

Executive Engineer.

(Appendix Z not reprinted with the Report)

*List of returns required to be submitted by executive engineers to other authorities than the examiner*

NAME OF RETURN	To whom submitted	Remarks
<b>PUNJAB</b>		
<b>WEEKLY</b>		
Return of the working of Inundation Canals	Chief and Superintending Engineers	
Weather report of perennial canals .	Ditto	
<b>MONTHLY</b>		
Return of sanctions . . .	Superintending Engineer	
„ of changes in upper subordinate establishment	Ditto	
List of unanswered references . . .	Ditto	
Gauge register of levels of rivers .	Ditto	
Statement of cases decided by Canal Magistrate	Ditto	
Progress report in narrative form	Ditto	
Statement of expenditure against budget grants .	Ditto	
„ of gauge readings of rivers	Chief and Superintending Engineers	
„ of rainfall .	Superintending Engineer	
„ of depth of water in wells .	Ditto	
„ of irrigation operations	Ditto	
„ of traffic, Sirhind and Western Jumna Canals	Ditto	
Consolidated receipts for fees paid, lambedars	Deputy Commissioner	
<b>QUARTERLY</b>		
Progress report	Superintending Engineer	
Report on apprentices overseers	Superintending Engineer and Rurki College	
<b>HALF-YEARLY</b>		
Distribution return of lower subordinates	Ditto	
Promotion rolls of engineer, upper subordinate and clerical establishments .	Ditto	



## APPENDIX AA.

*List of returns required to be submitted by executive engineers to other authorities than the examiner—contd*

Name of return	To whom submitted.	Remarks
<b>PUNJAB—contd</b>		
<b>HALF-YEARLY—contd</b>		
Classified list and distribution return of engineer, upper subordinate and accounts establishments . . .	Superintending Engineer	
Names of officers intending to proceed on furlough or long leave	Ditto	
List of engineers desirous of undergoing examination ..	Ditto	
Statement of sub-divisions ... ..	Ditto	
„ of boat bridges ... ..	Ditto	
Recommendation rolls ... ..	Ditto	
Application for temporary establishment ... ..	Ditto	
Irrigation operation statement, perennial canals, for kharif	Ditto	
Traffic statement, perennial canals ... ..	Ditto	
Report on officers wishing to appear at the departmental examination ... ..	Ditto	
Revenue returns Nos IVA and V .. ..	Ditto	
Statement of the depth of water in wells .. ..	Ditto	
<b>YEARLY.</b>		
Return of non-commissioned officers and soldiers recommended for promotion to warrant grade . . .	Ditto	
Return showing where and how students of Cooper's Hill Engineers who come out for training have been engaged during the period of training	Ditto	
Return of military buildings . . .	Government of India through Superintending Engineers	
Extract from return of public buildings . .	Ditto	
Annual progress or administration report ... ..	Superintending Engineer	
Preliminary schedule of demands (Imperial) ...	Ditto	
Preliminary budget estimates of Imperial, Provincial and District funds	Ditto	
Final issue of Imperial, Provincial and District funds	Ditto	
Standing barrack committee report .. ..	Ditto.	
Statement of establishment as it stood on 1st April ..	Ditto	
Estimate and return of expenditure of English stores .	Ditto	

*List of returns required to be submitted by executive engineers to other authorities than the examiner—contd*

NAME OF RETURN	To whom submitted.	Remarks
PUNJAB—contd		
YEARLY—contd		
Statement of Major works in progress on 31st March for the completion of which funds will be required	Superintending Engineer	
Annual estimate of requirements for mathematical instruments	Ditto	
List of several public works which have been constructed under construction or sanctioned during the year	Ditto	
List of sanitary works carried out or were in course of construction during the year	Ditto	
Annual report on sub-overseers for promotion to upper subordinate establishment	Ditto	
Progress statement of avenues	Forest Department	
Ditto groves ..		
Statement of income		
Progress statement of nurseries		
Statement of expenditure		
List of buildings occupied by post offices as it stood at close of financial year as well as their approximate value and rents ..	Postal Department	
List of churches	Superintending Engineer	
Forecast estimate of stores required from England (in triplicate)		
Indent for stationery ..	Ditto	
Statement showing limit of reserve stock	Ditto	
„ showing additions and alterations to list of buildings	Ditto	
„ of irrigation operations for kharif, Inundation canals	Ditto	
„ of irrigation operations for rabi, ditto	Ditto	
„ of traffic for kharif months	Ditto	
„ showing mileage of channels in use	Ditto	
„ showing in detail, by sub divisions and districts, the actual cost of canal guards during the year	Ditto	
Statement of the count of trees	Ditto	
Revenue return form No VIII for rabi ...	Ditto	

## APPENDIX AA.

*List of returns required to be submitted by executive engineers to other authorities than the examiner—contd*

NAME OF RETURNS	To whom submitted	Remarks.
PUNJAB—concl'd		
YEARLY—concl'd		
Arboriculture report . . . . .	Forest Department	
Comparative statement of irrigation and rainfall of perennial canals . . . . .	Superintending Engineer	
Comparative statement of inundation canals . . . . .	Ditto	
Statement showing the estimated value of crops grown on canal irrigated lands . . . . .	Ditto	
Revenue report . . . . .	Ditto	
Revenue return form No VIII for kharif . . . . .	Ditto	
Progress report of productive public works with comparative statements . . . . .	Ditto	
Statement showing limit of charges for country stationery . . . . .	Ditto	
Statement of officers who intend applying for leave during the hot months . . . . .	Ditto	
Statement of surplus stores available for transfer or sale . . . . .	Ditto.	
Statement of 2nd class warrant officers entitled to passage to England . . . . .	Ditto	
Statement showing surveying and mathematical instruments available for transfer and others required . . . . .	Ditto	
Estimate of stores required from England . . . . .	Ditto	
Estimate of canal barkandaz guards . . . . .	Ditto	
Six months' estimate . . . . .	Ditto	
Revised and budget estimates . . . . .	Ditto.	
Report of progress made in preparing revenue report . . . . .	Ditto	
Report on canal officers wishing to appear at the examination for magisterial powers . . . . .	Ditto	
Report on results of manufacturing operations . . . . .	Ditto	
Roll of sergeants recommended for warrant grade . . . . .	Ditto	
OCCASIONAL		
Report on engineers who have served two years in the department . . . . .	Ditto	
Return of deaths of European uncovenanted servants . . . . .	Ditto.	

*List of returns required to be submitted by executive engineers to other authorities than the examiner—contd*

NAME OF RETURN	To whom submitted	Remarks
<b>NORTH-WESTERN PROVINCES AND OUDH</b>		
<b>MONTHLY</b>		
List of sanctions . . . . .	Supg Engr	
Progress reports . . . . .	Ditto	
Return of European stores purchased in India ..	Ditto	
„ of water-rate realised .. Form VIR	Commissioner	
„ of demands and remissions of water-rates, „ VIIR	Supdg Engr	
Return of cases tried under Act VIII of 1873, „ XIIR	Ditto	
Statement of payments made on account of compensation for lands .. .. .	Ditto	
„ of cash outlay . . . . .	Ditto	
„ of irrigation effected, Form XVIIR	Ditto	
Register of works . . . . .	Ditto	
<b>QUARTERLY</b>		
Progress report of capital productive public works . . . . .	Ditto	
<b>HALF-YEARLY</b>		
Roll of warrant and non-commissioned officers . . . . .	Ditto	
Return of births, marriages, and deaths, do do . . . . .	Ditto	
Application for appropriation of funds . . . . .	Ditto.	
Promotion roll of engineer and upper and lower subordinate establishments .. . . .	Ditto	
Do of deputy magistrates and zilladars . . . . .	Ditto	
Return of sanctions, &c, to temporary establishments . . . . .	Ditto	
Register of measurements and assessments of revenue .. . . . Form IR	Collector	
„ of demands for water rates and patwaris' fees . . . . . Form IIR	Ditto	
Return of area of irrigation water rates to be collected .. . . . Form IIIR	Supg Engr	
„ of revenues from all sources .. . . . IVR	Ditto	
„ of revenue from miscellaneous sources, „ VR	Ditto	
„ of areas of crops irrigated .. . . . XXIR	Supg & Chief Engineer	
„ of dates of transmission of jamabandis, „ XXIIR	Superintending Engineer	

## APPENDIX AA.

*List of returns required to be submitted by executive engineers to other authorities than the examiner—contd.*

NAME OF RETURN	To whom submitted	Remarks
NORTH-WESTERN PROVINCES AND OUDH— <i>contd</i>		
YEARLY		
Narrative progress report . . .	Superintending Engineer	
Return of military buildings . . .	Ditto	
Report on lightning conductors . . .	Ditto	
„ of lapses of budget grants . . .	Ditto	
Report of roads constructed, under construction, &c . . .	Survey Department	
Indent for stores from England . . .	Superintending Engineer	
„ for stationery . . .	Ditto	
Abstract estimate of London supplies . . .	Ditto	
Budget estimate of Public Works . . .	Ditto	
Progress report, Public Works . . .	Ditto	
„ plantations . . .	Ditto	
Revenue report . . .	Ditto	
Report on examination of service records . . .	Chief Engineer	
„ on office libraries . . .	Superintending Engineer	
Return of gauges and discharges of rivers . . .	Ditto	
„ showing quantity of portland cement required . . .	Ditto	
„ of complaints against measurements, Form XXR . . .	Ditto	
„ of 2nd class warrant officers requiring passages to England . . .	Government	
Statements of receipts and issues of stores . . .	Superintending Engineer	
„ of water entering and leaving the division . . .	Ditto	
„ of irrigation from distributaries . . .	Ditto	
Register of maps and plans . . .	Ditto	
Diagrams of canal gauges for previous financial year . . .	Ditto	

*List of returns required to be submitted by executive engineers to other authorities than the examiner—contd*

NAME OF RETURN	To whom submitted	Remarks
<b>NORTH-WESTERN PROVINCES AND OUDH—concl'd</b>		
<b>YEARLY—contd</b>		
<i>Returns required of District Engineers only</i>		
List of works administratively sanctioned .. ..	Chairman, District Board	
„ of works available for famine relief . . .	Ditto	
„ of works of public utility constructed during year .	Ditto	
Local incorporated funds budget .	Ditto	
Returns for district boards' annual report ..	Ditto	
<b>BOMBAY</b>		
<b>WEEKLY</b>		
Rain gauge reports . . . .	Chief Engineer	
Sanitary report . . . .	Station Staff Officer	
<b>MONTHLY</b>		
Progress report of military works .. ..	Quarter Master General, Station Staff Officer and Chief Engineer	
List of all new works and special repairs, including additions and alterations, sanctioned for execution	Chief Engineer	
Statement of employment of upper and lower subordinates	Ditto	
Report of contracts exceeding Rs. 500 each, entered into by executive engineer	Ditto	
List of officers who occupied public buildings during the month	Presidency Pay Master, Treasury Officer and Chief Commissariat Officer	
Distribution of funds on taluka treasury	Treasury Officer	
Irrigation operation statement . . .	Chief Engineer	
Irrigation registers of discharges of canals ... ..	Ditto	
<b>QUARTERLY</b>		
Nominal roll of men on the unattached list . . .	Officer Commanding Sappers and Miners	

## APPENDIX AA.

*List of returns required to be submitted by executive engineers to other authorities than the examiner—contd*

NAME OF RETURN	To whom submitted	Remarks
<b>BOMBAY—contd</b>		
<b>QUARTERLY—contd</b>		
Return of unanswered references from Chief Engineer ...	Chief Engineer	
Return of centerings, stock, and tools and plant available for transfer	Ditto	
Return of savings and excesss on works and repairs ...	Ditto.	
Distribution list of officers	Deputy Collect- or	
<b>HALF-YEARLY</b>		
Statement of temporary establishment ..	Chief Engineer	
Irrigation canal returns Nos III, IV ...	Collector	
Ditto ditto No V	Chief Engineer	
Indent for mathematical instruments	Superintendent of Stationery	
Report on the condition of drawbridges, defensible gates and barriers in forts	Chief Engineer and Command- ing Officer	
Report on the qualifications of civil and military subordin- ates	Chief Engineer	
Return of members of temporary establishment qualified for admission into the department as sub-overseers	Ditto	
Return of sub divisional allowance ..	Ditto	
„ of births, marriages and deaths of British soldiers serving in the Public Works Department	Secretary to Government, Public Works Department	
Return of petty establishment employed on works ..	Chief Engineer	
<b>YEARLY</b>		
Return of works in progress on 1st March for which no provision in budget has been made for ensuing year	Ditto	
Estimate of tools and plant required for ensuing year	Ditto	
„ of stores likely to be required from England	Ditto	
„ of annual repairs to public buildings	Ditto	
„ of requirements for military works ..	Ditto	
Budget estimate of the division	Ditto	
Indent for books and printed forms	Superintendent, Government Press	

*List of returns required to be submitted by executive engineers to other authorities than the examiner—contd*

NAME OF RETURN	To whom submitted	Remarks.
<b>BOMBAY—contd</b>		
<b>YEARLY—contd</b>		
Administration report	Chief Engineer	
Return of military and other buildings erected or maintained from funds in the Public Works budget, the cost of which is not less than Rs 1,000 each	Ditto	
Return showing 2nd class warrant officers who require passages to England	Quarter Master General	
Indent for stationery	Superintendent of Stationery	
Return of the number and description of new barracks and hospitals occupied by British troops during the year and those destroyed or disused on sanitary grounds	District Staff Officer	
Indent on India Office for stores chargeable to Provincial	Chief Engineer	
Indent for books, periodicals and newspapers from England	Ditto	
Statement showing the services of each subordinate in several districts	Ditto	
Report of all rollers and heaps of metal or moorum having been removed off the roads	Ditto	
Application for temporary establishment (Irrigation) ...	Ditto	
Return of landholding and commercial speculation (Irrigation)	Ditto	
Canal return No VI (Irrigation)	Ditto	
Annual return of Poona water supply (Irrigation)	Ditto	
Statement of saving to Government by introduction of canal water into Poona cantonment (Irrigation)	Ditto	
Statement of European stores purchased during the year	Ditto	
Revenue reports (Irrigation)	Ditto	
Copies of rain returns	Meteorological Department	
<b>BENGAL</b>		
<b>DAILY.</b>		
Gauge readings	Government.	



## APPENDIX AA.

*List of returns required to be submitted by executive engineers to other authorities than the examiner—contd*

NAME OF RETURN	To whom submitted	Remarks
<b>BENGAL—contd</b>		
<b>WEEKLY</b>		
Irrigation notes ...	Supg Engineer	
<b>MONTHLY</b>		
Progress report of works ...	Supg and Chief Engineers	
Register of works and repairs sanctioned ..	Supg Engineer	
Statements of Irrigation operations ... ..	Ditto	
Ditto of traffic on canals classed as "Major Works"	Ditto	
Ditto of ditto ditto "Minor Works"	Ditto	
Ditto showing working of vessels ..	Ditto	
<b>QUARTERLY</b>		
Statement showing alterations in classified list	Ditto	
Nominal list of executive and assistant engineers in excess of requirements	Ditto	
Report on the state of boilers and dredgers ..	Ditto.	
<b>HALF-YEARLY</b>		
Character rolls ... ..	Ditto	
Report on assistant engineers desirous of undergoing examination	Ditto	
Estimate of probable requirements for tools and plant	Ditto	
Return of changes in vessels other than row-boats	Ditto	
Report of survey of steam-launches and dredgers	Ditto	
Statements of irrigation and traffic	Ditto	
<b>YEARLY</b>		
Schedule of demands for Imperial Works ..	Ditto	
Ditto ditto Civil Works	Ditto	
Budget statements of Provincial Civil Works	Ditto	
Ditto of Imperial Military Works	Ditto	
Ditto of Ditto Civil Works	Ditto	
Ditto of Local Funds	Ditto	

*List of returns required to be submitted by executive engineers to other authorities than the examiner—contd*

NAME OF RETURN	To whom submitted	Remarks
<b>BENGAL—contd</b>		
<b>YEARLY—contd</b>		
Budget statements of receipts and maintenance of staging bungalows	Superintending Engineer	
Return of surplus stores	Ditto	
„ of funds required to complete works on 1st April	Ditto	
„ of stores likely to be indented for from England	Ditto	
„ of all stores procured either from England or locally	Ditto	
„ of buildings added to or struck off the list of Public Works buildings during the year	Ditto	
„ of churches ditto	Ditto	
List of corrections made in schedule of rates	Ditto	
Register of barrack accommodation	Ditto	
Schedule of lands taken up for Military Department	Civil Officer Assistant Quarter Master General and Deputy Quarter Master General	
Report on architectural remains visited	Supg Engineer	
„ on lightning conductors	Ditto	
„ on quantity of gunpowder required for use	Ditto	
Regular or revised budget estimates and budget estimates of the year	Ditto	
Roll of non-commissioned officers recommended for promotion	Ditto	
Statement of temporary establishment required	Ditto	
State of service books	Ditto	
Requirements of mathematical instruments	Ditto	
History of service	Ditto	
Progress report in narrative form	Ditto	
Requirements of elephant carriage	Ditto	
Indent for stationery	Ditto	
„ for correspondence forms	Ditto	

## APPENDIX AA.

*List of returns required to be submitted by executive engineers to other authorities than the examiner—contd*

NAME OF RETURN	To whom submitted.	Remarks
<b>BENGAL—concl'd</b>		
<b>YEARLY—concl'd</b>		
List of new roads, canals or railways .	Survey Department	
Report on Cooper's Hill officers under practical training	Supg Engineer	
„ after year's probationary service of Indian Civil Engineering College students	Ditto	
Promotion recommendation roll . ..	Ditto	
Return of passages to England required by warrant officers	Ditto	
Return of domestic occurrences amongst warrant and non-commissioned officers and soldiers serving in Public Works Department	Ditto	
Schedule of preliminary demands for Imperial grants for Irrigation Works	Ditto	
Progress report of capital expenditure on Major Irrigation Works	Ditto	
Report of expenditure on embankments	To Collector, through Supg Engineer	
Statement showing state of distributaries	Supg Engineer	
Progress and administration reports .	Ditto	
Statement showing the area actually irrigated .	Ditto	
Revenue report of irrigation works	Ditto	
Rough budget estimates . . . .	Ditto	
Indent for irrigation forms	Ditto	
Statement of trees planted on canal banks .	Ditto	
Preliminary rough tuccavi estimates	Ditto	
Detailed ditto „ ..	Ditto	
Return showing number of mahomedans employed	Educational Department	
<b>OCCASIONAL</b>		
Death return of civil engineers and European uncovenanted officers	Supg Engineer	
Report on each engineer admitted subsequent to 1st October 1878	Ditto	

*List of returns required to be submitted by executive engineers to other authorities than the examiner—contd*

NAME OF RETURN	To whom submitted	Remarks.
<b>MADRAS</b>		
<b>WEEKLY</b>		
Dates of making over and receiving charge of an office, or of departure, on, or return from, leave of any kind	Superintending Engineer	
<b>MONTHLY</b>		
River diagrams	Ditto	
Progress reports	Ditto and President, Local Fund Board	
Statement of receipts and issues on account of tanks of Chembrambakam, Red hills and Cholaveram	Chief Engineer Irrigation	
Return of sanctioned estimates	Superintending Engineer	
Statement of transfers and leave	Ditto	
Movement of royal engineers in the P W Dept	Ditto	
Variation statement showing changes in the return of 2nd class warrant officers and their families requiring passages to England	Ditto	
<b>QUARTERLY</b>		
Return of European non-commissioned officers and men of the royal engineers	Ditto	
List of unanswered references	Ditto	
Progress report of irrigation works	Collector	
Distribution return of officers and subordinates	Supp Engineer	
<b>HALF-YEARLY</b>		
Return of officers for vernacular examination	Ditto	
„ of traffic on canals	Ditto	
„ of machinery	Ditto	
Promotion recommendation rolls	Ditto	
<b>YEARLY</b>		
Extract from the register of public buildings	Ditto	
List of officers who will attain the age of 55 during the year	Ditto	
Application for modification of allotments, irrigation	Ditto	

## APPENDIX AA.

*List of returns required to be submitted by executive engineers to other authorities than the examiner—contd*

NAME OF RETURN	To whom submitted	Remarks
MADRAS—contd		
YEARLY—contd		
Special report on the state of all temporary barrack buildings	Chief Engineer through Superintending Engineer	
Indent for stationery	Supg Engineer	
Return of floating plant	Ditto	
Imperial, provincial and irrigation budget estimates	Ditto	
Estimate of probable requirements for irrigation works	Ditto	
Tracing of the cantonment plan showing all new buildings, &c, carried out, with list of all new buildings and roads	Quarter Master General, through Officer Commanding	
Estimate of country stationery	Supg Engineer.	
Annual statement of expenditure on stores	Ditto	
Estimate of the probable quantity and value of stores required from England	Ditto	
„ of stationery (Europe)	Ditto	
Administration Report, irrigation, with register of anicuts and flood embankments	Ditto	
Do with appendices, general branch	Ditto	
Abstract rainfall register	Chief Eng Irgrn	
River charts	Supg Engineer	
Demand for temporary establishment	Ditto	
Statement of demands for incomplete major works	Ditto	
Report of ancient architectural remains	Ditto	
Statement of lands required by public servants	Ditto	
Return of public military buildings	Ditto	
Statement showing the date of completion, earnings, &c, of departmental inspection boats	Ditto	
„ showing earnings and expenses of delta steamers	Ditto	
Report of the working of navigation rules	Ditto	
River diagrams	Ditto	

*List of returns required to be submitted by executive engineers to other authorities than the examiner—contd*

NAME OF RETURN	To whom submitted	Remarks
MADRAS— <i>concl'd</i>		
OCCASIONAL		
Rise and fall in prices, for modification of schedule of rates	Supg Engineer	
MILITARY WORKS DEPARTMENT		
WEEKLY		
Report of the strength of departmental officers and subordinates	Station Medical Officer	
Sanitary report	Cantonment Magistrate.	
MONTHLY		
Report of contracts made	Supg Engineer	
List of unanswered references	Ditto	
„ of sanctions by local authorities	Ditto	
„ of gas consumed by troops	Ditto	
„ of gas consumed by private persons	Ditto	
QUARTERLY		
Progress report of major works	Inspector General	
Ditto of works and repairs	Supg Engineer	
Ditto of barrack department	Ditto	
HALF-YEARLY		
Movements of engineers, upper subordinates and barrack department	Ditto	
Register of births, deaths and marriages of soldiers on unattached list	Ditto	
Recommendation roll of engineer and upper subordinates	Ditto	
Ditto of barrack sergeants	Ditto	
Ditto of barrack masters	Ditto	
Ditto of sub overseers	Ditto	
Ditto of clerks and draftsmen	Ditto	
Return of buildings completed of which drawings exist	Ditto	
„ of domestic occurrences of R E officers	Ditto	
Report on inspection of draw bridges and defensible barriers	Superintending Engineer and Brigade Major	
Return of sale of packing cases	Superintendent of Stationery	

## APPENDIX AA

*List of returns required to be submitted by executive engineers to other authorities than the examiner—contd*

NAME OF RETURN	To whom submitted	Remarks
<b>MILITARY WORKS DEPARTMENT—contd</b>		
<b>HALF-YEARLY—contd</b>		
Return of changes in surplus stock .	Supg Engineer	
„ of men, women and children of various denomi- nations	Brigade Major	
<b>YEARLY</b>		
Preliminary schedule of demands ... .	Supg Engineer	
Budget estimate for barrack and hospital furniture	Ditto	
Ditto of Military Works . .	Ditto	
Estimate of requirements of ordnance stores .	Ditto	
Application for medal and gratuity for long service and good conduct of military subordinates	Ditto	
Narrative progress report . . . .	Ditto	
Indent for stationery ... ..	Ditto	
„ for London Stores .. .	Ditto	
Estimate for repairs of barrack and hospital furniture .	Ditto	
Return of public buildings for each station .	Superintending Engineer and Deputy Assis- tant Quarter Master Gene- ral	
„ of barracks ditto . .	Ditto	
„ of arms and accoutrements in use with non- commissioned staff	Examiner, Ord- nance accounts	
Standing Barrack Committee report on building require- ments	Supg Engineer	
Statement of sums required for works in progress on 1st April	Ditto.	
Statement of warrant officers requiring passages to England	Ditto	
„ of non-commissioned officers ditto ..	Ditto	
Report on temporary buildings .	Ditto	
Return of Barrack Sergeants recommended for warrant grade . . . .	Ditto.	

*List of returns required to be submitted by executive engineers to other authorities than the examiner—concl'd*

NAME OF RETURN	To whom submitted	Remarks
<b>MILITARY WORKS DEPARTMENT—concl'd</b>		
<b>YEARLY—concl'd</b>		
Return of Public Works Department Sergeants recommended for warrant grade	Supg Engineer	
Return of mathematical instruments required	Ditto	
„ of lower subordinates recommended for promotion	Ditto	
„ of land required for military purposes	Ditto and Quarter Master General	
Report on the condition of forts	Supg Engineer	
„ on divisional stock rates when in excess of market rates	Ditto	
„ of changes and casualties to R E soldiers	Ditto	
Revision of scale of furniture for each station		
Indent for paints for cook-house receptacles	Ordnance Department	
Confidential report on R E officers	Supg Engineer	



## APPENDIX BB.

## Evidence of certain Bombay officers on the subject of travelling audit.

Mr PALLISER, *Executive Engineer, examined by the President of the Committee*

The system of travelling audit has been in force from March 1888. Has had five months experience of it, three months in Ahmedabad and two months in Surat and Broach.

2 His office at Ahmedabad was visited by the travelling inspectors three times, and his office at Surat once. They stayed from two to four days on each occasion, as a rule he saw the travelling inspectors.

3 Cannot tell what they actually did. Saw signature to account current, and marks in books.

4 Since the travelling audit system was introduced, the Surat office was visited once by the deputy examiner, Mr Lund, witness did not see him as he was absent in the district, but got his inspection notes. Does not know how long deputy examiner stayed.

5 Believes it is intended that his office should be visited at first every month, afterwards every alternate month, by the travelling inspector and his clerks, and that a deputy examiner should visit it twice a year, and the examiner once a year. This is after the system is once introduced, more frequently till then. [Note—Ascertained from a clerk that Major LeBruton examined the office in March 1888.]

6 The travelling inspectors begin with the cash-book and the initial vouchers, and after audit of the vouchers trace them through the books, &c, into the account-current.

7 Witness should say that there are approximately 200 to 300 initial vouchers a month, in the runs there are fewer.

8 Thinks there is no objection to entrusting these duties of audit to officials of the standing of travelling inspectors, provided they are frequently inter-changed (two or three times a year) and provided their work in the office is checked once in three months by the examiner or a deputy examiner.

9 No accountant lower than the third grade should be employed on this duty. In other words, the lowest salary paid should be Rs. 200 a month. He should be senior to the divisional accountant. Thinks the work could be well done without giving over Rs. 250.

10 Thinks it would not be likely to become onerous to the executive engineer or his office or to the accountant to have visits once in two months of a week's duration from the travelling inspectors, provided they are men selected for tact. The executive engineer would welcome their visits in consideration of the relief that he has had.

11 Thinks there is some danger of collusion between travelling inspectors and accountants, which might be practically obviated by frequent change and inspection.

12 Work in executive engineer's office is reduced by reduction of the bulk of accounts submitted to the examiner. Correspondence is reduced by the audit being based upon the initial documents and books instead of on compilations from them. The getting rid of audit notes (half margins) practically abolishes friction and correspondence.

13 Thinks it is fairly safe to keep the vouchers locally. If thought otherwise, they might be sent to Bombay after being passed by travelling inspectors. In the event of disputes the vouchers should be placed in the cash chest.

14 Under the system of travelling audit the executive engineer is relieved to a great extent of the duty of scrutinising his day-books. The executive engineer still checks his day-books here and there, whenever he thinks necessary.

15 The introduction of Public Works Department form No 31B made executive engineers look better after their day-books.

16 In reply to the question whether "supposing your books and accounts were reduced in the manner suggested in the notes put before you by this Committee, and supposing the examiner or a deputy examiner, with one clerk, visited your office once or perhaps twice each year and audited (say)  $\frac{1}{2}$ th or  $\frac{1}{3}$ th of the vouchers that were not submitted to the examiner, and thoroughly inspected your books, would not all the advantages claimed for the travelling audit be attained," says "possibly."

To Mr BURKE

17 Thinks the travelling inspector need visit executive engineers' offices only once in two months, i.e., every alternate month.

18 Thinks the examiner or deputy examiner need visit executive engineer's office after each alternate audit, i.e., once in four months.

19 If the scheme of improvement of the system of accounts indicated by the notes of the Committee were brought into force and combined with a travelling audit, that would in his opinion be more efficient than a central audit supplemented by a test audit, as explained by Mr Macdonald.

*To LIEUT -COL HARVEY*

- 20 There has never been, to his knowledge, any occasion in the last five months for the use of the register of serious points intended to be kept in the executive engineer's office
- 21 No members of his staff are taken off their work for attendance on the inspectors

*MR DOIG, Executive Engineer, examined by the President of the Committee*

- 1 The travelling audit has been in force for about nine or ten months
- 2 The travelling inspectors have visited his office on an average once every two months
- 3 As a rule the inspector has been at the office when the executive engineer was away. He saw him once at the office
- 4 The travelling inspector examined all the books, papers and vouchers. Of his own knowledge, does not know that the inspector did anything. Saw his initials on the books, cash-book, not day-books
- 5 The office was once inspected by a deputy examiner, Mr Lund
- 6 Thinks it is intended to thoroughly examine all his vouchers, books and accounts, on each occasion, from the date they were examined to previously
- 7 Thinks it is wise to entrust the detailed audit to officials of the standing of these inspectors
- 8 Thinks the lowest pay that should be given is Rs 200 a month
- 9 In reply to the question "Do you not think that it would soon become a very irksome burden to the executive engineers and their offices, especially to the accountants, to have men of the standing of these travelling inspectors visiting their offices once every two months, or so, and staying for a week or so, at each time," says, not in his experience
- 10 Thinks there is no danger of collusion between the inspectors and the accountants
- 11 Thinks it is safe to keep all vouchers locally in the executive engineer's office, and that it is possible they would be in danger of being tampered with, but not likely
- 12 There has been very great relief from correspondence and friction by the introduction of the travelling audit system

*To MR CORDNER*

- 13 Cannot particularise the parts of the accounts which gave rise to the correspondence

*To THE PRESIDENT*

- 14 Does not understand in what detail it is intended to audit his accounts by the travelling audit staff
- 15 Wants a trained accountant. Does not mind how low he is paid if he be efficient. He should have some hopes of good pay and be pensionable. Thinks fair pay would be Rs 60 to Rs 200, thinks the present pay Rs 80 to Rs 240 fair enough
- 16 The staff of clerks in his office could be reduced in consequence of the travelling audit, it saves copying papers and returns and much correspondence. His office has been reduced
- 17 He has not been relieved in check of day-books

*To MR BURKE*

- 18 Thinks it is quite as wise and efficient to entrust the audit to a man of the rank of these inspectors, working in the executive engineer's office, as to entrust it to the same man in the examiner's office
- 19 Wishes the audit to be done monthly

*To THE PRESIDENT*

- 20 Thinks that, although the accountant may be a well-trained efficient man, it is insufficient that a portion of his work (say 1/3th) within the twelve months should be thoroughly overhauled by a representative of the examiner. Thinks that it would be necessary that the whole of his work should be overhauled as it is proposed to be done in the travelling audit

*To LIEUT -COL HARVEY*

- 21 Thinks it is preferable that the travelling inspector should be senior to the accountant of the office inspected

*MR GOPAL NARAIN, 3rd grade, of the Ahmedabad District, examined by the President of the Committee*

- 1 The travelling audit system has been in force from 1st April 1888
- 2 The travelling inspector has visited his office once a month
- 3 He stayed on the average four days
- 4 He examined the cash-book entries with initial vouchers, also day-books by initial vouchers, not by daily or ten-day reports (he takes allocation of outlay to sub-head or items

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as granted), register of works by day-books, cash abstract book by cash-book, adjustment-book by vouchers

He brings the accounts submitted to examiner with him and checks the account-current by the cash abstract book, he checks the schedule by the cash abstract book, and by the day-books

He checked the calculations in all vouchers on which payments were made except muster-rolls. He does not look at measurement-books. He does not call for them. He takes as correct the measurements given in bills

5 The witness himself sometimes checks the calculations in measurement books. He spends two or three days in the month on check of calculations in measurement-books. He thinks this is a waste of his time

6 The travelling inspector applies no check whatever to the calculations in muster-roll, and he does not check the allocation of the amounts of muster-rolls to works and to sub-heads or items

7 Most of the works are carried out departmentally. Payments are made on muster-roll, petty contract bills (form No 15), material bills and form No 18

8 The bulk of the payments is made on muster-rolls. There is little paid on forms Nos 15 and 18

9 The travelling inspector does not trace the measurements from the measurement-books into the day-books

10 He traces the amounts due for labor from the muster-rolls into the day-books

11 The amounts due on forms Nos 15 and 18 are also traced into the day-books

12 It has sometimes happened that a bill made out in form 15 for work done by a petty contractor has not been paid within the month in which the bill was made out, such a bill is included in the day-book for the month in which made out. The travelling inspector checks this, if it be entered. He has no means of seeing that such bill is not omitted

13 There is a book kept of "inspection notes" in the executive engineer's office. The travelling inspector makes no record in it of the books, schedules or vouchers examined. He makes in it notes of errors he has found or instructions he has to give, referring to the books or other documents they relate to. There have been very few such entries

14 Before the travelling audit system was introduced, there were very many entries in the half-margin remarks

15 The cause of the reduction of work is that the accountant is now able to verbally explain matters to the travelling inspector. Many of the audit remarks were trivial and such as can be dealt with satisfactorily on the spot, such as Rs 2-4-2 instead of Rs 2-4-1. This would formerly have been entered in the half-margin remarks, now it is corrected on the spot

16 The travelling inspector does not initial the books which he examines. He initials the schedules and the vouchers for payment, the vouchers are also stamped by him. He dates his initials

17 No orders are given to accountant by travelling inspector, he tells accountant to correct entries in books and schedules, but not to alter figures in vouchers. Has never altered any entry in the cash-book on the travelling inspector's order

18 Has made alterations in the cash abstract book, sub register, day-books and register of works, wrong postings and such like

19 The travelling inspector does not afford instruction in book-keeping or audit, witness knows his work. The travelling inspector is junior to him

20 The travelling inspector never makes any communication to the executive engineer

21 The travelling inspector had three clerks with him

22 Does not think it necessary in the interests of Government that his work should be checked in the detailed manner contemplated by the travelling audit system. Thinks that one visit a year by the deputy examiner with one clerk and the thorough examination of one month's accounts (chosen without knowledge of the accountant) would be a sufficient check in the interests of Government

23 Thinks that the proposals to make one visit of the travelling inspector with his clerks once in two months, two visits from the deputy examiner in the year, and one from the examiner in the year, would soon become very irksome to the accountant

24 Has had relief from the introduction of the system of travelling audit. The relief takes the shape of transfer to the travelling inspector of responsibility after he has audited the accounts. Has been also relieved of work in the preparation and copying of certain documents

25 The witness being here shown a list of books and accounts which are likely to be required to be kept by executive engineers, under the recommendation of the Committee, says that if the accounts to be submitted monthly were prepared in the simplified shape, and if the audit were limited to seeing that the payment vouchers were correct, the vouchers setting

forth receipts correct, and to comparing the outlay on works with vouchers and with total estimate and total appropriation, and if the only inspection and local audit were to be made on two visits a year by the deputy examiner or the examiner, he would prefer this arrangement to the system of travelling audit now in force Says this is his decided opinion

*To Mr BURKE*

26 Finds that his work and the work of his subordinates is frequently interrupted by the travelling inspector and his clerks This is what he means by irksome

27 The travelling inspector takes up the accountant's time for one or two hours each day of six hours These two hours are not continuous

28 Did not find any marks of check on muster-rolls and knows that they were not checked

*To LIEUT -COL HARTY*

29 Cannot say whether travelling inspector checked the calculations in the day-books or not

30 The travelling inspector entered in "inspection notes" book only such items as were not finally disposed of at the time

31 The "inspection notes" book has been seen by the executive engineer

*Khan Bahadur Mr MURZBAN, Executive Engineer, examined by the President of the Committee*

1 The travelling audit has been in force since January 1888

2 The visits of the travelling inspector and his clerks interfere with the accounts work of his office for two or three days a month It does not actually stop work for that period

3 Has not found the travelling audit irksome to himself Has had no complaints against it from his accountant or any other member of his office

4 Does not think that the proposal for travelling audit which involves a visit once in two months at least from a travelling inspector with two or three clerks, two visits a year from a deputy examiner, and one visit a year from the examiner, is likely to prove irksome to him, to his accountant, or to his office

5 Expects the travelling inspector and his clerks to stay in his office about a week

6 Expects the travelling inspector and his clerks to examine the cash book by the vouchers, the adjustment-book similarly, the day-books with the muster-rolls, material bills and contractors certificates Not to examine measurement-books To check all the calculations in all the vouchers on which payments are made, inclusive of muster-rolls Places great importance on this check of muster-rolls To check register of works by day-books, suspense schedules by vouchers

7 Supposing the books kept by executive engineers and the accounts submitted to the examiner were simplified as explained by the President, and supposing the audit of the examiner were also simplified as has also been explained by the President, would then prefer the post audit system with two visits a year from the deputy examiner and one visit from the examiner This is his decided opinion

*To Mr BURKE*

Supposing the books and accounts were simplified as explained by the President and combined with a travelling audit, would still prefer the post audit system The reason is saving of trouble to his accountant and his office

*MR SUCCARAM DHONDEO, Accountant, 3rd grade, examined by the President of the Committee*

1 Is travelling inspector of accounts

2 Has been about nine months at this duty.

3 Has audited the accounts of all the offices in the Northern Division (Circle of superintendence)

4 Has three clerks

5 His salary is Rs 240 Pay of clerks is, two men on Rs 50 and one on Rs 45

6 Has received no written instructions from the examiner as to how he is to conduct his audit of the accounts of executive engineers, but received verbal instructions from Major LeBreton

7 Received these instructions at the time he first began to visit executive engineers' offices No addition since

8 The tenor of the instructions was, in addition to auditing the compiled accounts submitted to the examiner, to satisfy himself of the correctness of the documents from which the accounts were compiled He received further detailed instructions, viz., to examine every entry in the cash-book and the adjustment-book with the vouchers, to trace the entries from the vouchers and these two books into the different books, accounts and schedules

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9 At the time he began to perform the duties of travelling audit had had—

14 years' service as accountant of an executive engineer's office

6 years' service in the examiner's office, of which one was in the booking branch and five in the account audit branch

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20 years

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Had previous service as a clerk of about two years This was spent in the establishment branch of the examiner's office

10 Four men—himself and three clerks—work together, one man takes the cash-book, another takes vouchers, a third takes day-books, and a fourth takes other books or schedules, into which the entries run He himself reads out from the cash-book, the man holding the voucher reads out name of work, payee, nature of transaction The amounts in cash-book, voucher, day-book, &c, are then compared

11 The vouchers of payments are subsequently checked as to their completeness and being correct This is done by one of the clerks They are then enfaced by the same clerk The calculations in all payment vouchers, except those in muster-rolls, are all checked by a clerk The calculations in 10 per cent of the muster-rolls are completely checked by a clerk This means 10 or 5 per cent of the entries in each document, it does not mean that in the case of one muster-roll in ten, all the calculations in it are completely checked

12 Does not check the allocation of the amounts of muster-rolls to works, sub-heads of works, or items of works

13 Accepts the entries of allocation from muster-rolls in day-books

14 In the district offices outside Bombay the documents on which payments are mostly made are—

Muster-rolls  
Material bills  
Contract bills  
Hand receipts

The bulk of the payments are on muster-rolls and material bills.

15 In the offices at Bombay payments are mostly made on—

Contractors' bills  
Material bills  
Muster-rolls (to a small extent)

The bulk of the payments are on contractors' bills and material bills

16 Never sees the daily or ten-day reports, nor any corresponding document

17 *Materials*—Does not check the quantity of materials paid for from the material bill into the day-books Does check the amount Does not check the allocation to items of work and sub-heads of estimates of materials purchased and issued to a work Applies no check which would detect a wrong allocation of materials to sub-heads

18 *Measurements*—Sometimes calls for measurement-books Called for them two or three times in the office of the Presidency district, once or twice also in the Ahmedabad office Saw them those times

19 Checked none of the calculations in the measurement-books Compared totals billed for with entries in measurement-book Does this very seldom, the books are generally not available

20 *Contract bills*—Applies a check which would bring to notice if any bill drawn up and passed but not paid were omitted from the day-book of a work

21 Does this by comparing entries in contractors' ledger with day-book Every bill when passed ought to be entered in contractors' ledger If a bill were not entered in contractors' ledger, knows of no means of applying a check which would discover the omission from the day-book

#### To MR. CORDER

22 Asks the accountant if he has any bills in his hands which are unpaid, whether passed by executive engineer or not

#### To THE PRESIDENT

23 The only check applied to see that no muster-roll is omitted from a day-book is to ask the accountant if he has any unpaid muster-rolls beside him But in case of one muster-roll for a work, looks to the date to see that the latest muster-roll that could have come in is included It is usual to include the labor due on muster-rolls for the month in the day-book of the month

24 *Rent return*—Thoroughly audits rent returns except with respect to recoveries through other departments

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25 *Establishment vouchers* —Does not audit salary bills nor travelling allowances, nor contingencies, but audits the acquittance-rolls

26 When the receipt stamps are not defaced by signature, then they are punched There is an order of the Government of Bombay justifying this [Note —This is contrary to para 2 (m) of P W D No 64 A G of 17th February 1888]

27 *Audit remarks* —The audit remarks issued by the examiner's office before travelling audit was introduced were usually on trivial and unimportant points This remark applies to audit remarks now issued to those districts to which travelling audit does not apply There are some important items in the audit remarks

28 *Reports* —If all is right sends in no report, simply the monthly account-current endorsed with his signature as passed

29 The raising of an objection entirely depends upon him

30 When a doubtful point of audit arises refers to the examiner by a special report Uses the book of "inspection notes" frequently

31 Gives orders to the district accountant on matters which can be settled verbally

32 Teaches where necessary

33 As a rule the district accountants are capable men

34 When he thinks it necessary gives up some part of the detailed audit, as below

The part he gives up is the part which does not affect the monthly accounts he has to pass—

*Day-books* —Only checks summary of disbursements Only checks aggregate totals of charges side and the account of arrears

*Register of works* —Does not compare the entries item by item, only the cash charges and deviations and extra items

*Payment vouchers* —Gives up nothing here except as regards muster-rolls

*Sub-register* —Compares with totals in register of works

#### To LIEUTENANT-COLONEL HARVEY

35 The "inspection notes" book is kept in the executive engineer's office, and is looked at by inspector when he makes a succeeding visit. Important notes, and those beyond his power of settlement, are sent direct to examiner

#### To MR BURKE

In his opinion the audit of executive engineers' accounts, whether it takes place in the examiner's office or in the executive engineer's office is of the same character, but more efficient if conducted in the executive engineer's office Could not in the examineer's office check a wrong allocation of materials to a sub-head

Evidence recorded on the spot by me and now extracted from my note-book

SIMLA, }  
The 4th June 1889 }

(Signed) R G MACDONALD,

President of the P W Accts Committee



